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St. Bartholomew's Hospital Journal,

MAY 14th, 1896.

"Æquam memento rebus in arduis
Servare mentem."—*Horace,* Book ii, Ode iii.

ALL Bart.'s men, both past and present, will, we have no doubt, find many points of interest in the Treasurer's speech at the View Day Dinner. The Treasurer's speech is naturally the important speech of the evening, and is always of particular interest, because it includes not only a brief picture of the last year's work, but also a rough foreshadowing of the events in the near future. It is now some time since a formal representation was made to the Governors, to the effect that our Junior Staff were not treated as it became so great a hospital as our own to treat its residents. Many were the expressions of opinion as to what the ultimate effect would be, and there were not a few pessimists who loudly shouted their views that no good results would be forthcoming from the representation. Ultimately a few meagre hints and rumours leaked out, and the knowing ones said that the question would probably be dealt with in the Treasurer's speech at the View Day Dinner. The question was dealt with, as will be seen by the report of the Dinner in another part of the issue, and Sir Trevor's announcement of the decision of the Governors was received with considerable applause and satisfaction. There is no doubt that the decision of the Governors is an eminently proper one, and one can only wonder why the old condition of things has been allowed to exist so long.

We have lately held, and shall continue to hold till October 1st next, the anomalous position of the richest hospital in London, and yet the *only* hospital in London where the Resident Staff are obliged to pay for their board. We heard recently that a well-known hospital in London whose finances were in a somewhat unsatisfactory state, had decided to cease boarding their Residents because, as they said, "Bart.'s do not board their Residents, so why should we?" We are complimented by the determination of our friends to take us as their example, but we trust that they will continue to follow our example, or, as perhaps we should say, remain as they were, and lay the flattering unction to their souls that *we* have followed *their* example. Glad as we are to take the lead, we should not remember with any pleasure that we had set so unfortunate an example. In this instance, we must be satisfied that the change has occurred at all, and we must not grumble even though we are the last London hospital to take the plunge.

It is within the memory of many of us, that excellent men, well qualified, and likely to make good House Surgeons—which is quite another story—have been prevented from becoming members of the Junior Staff only because they could not afford the addition of another unproductive, and withal very expensive year to their already expensive Medical Education. This unhappy state of affairs can no longer obtain. We are heartily glad of it, and in the name of all present and future Bart.'s men we tender our sincere thanks to all those who have shared in bringing about this most wise and popular reform. We most heartily endorse Sir Trevor's remarks in regard to the importance of making whatever change may be decided upon, a change that will

give complete satisfaction to everyone, and we have little doubt that the attention of the authorities having been once drawn to the Junior Staff, it will not be withdrawn until the scheme is seen to be in working order and to be giving complete satisfaction to all concerned.

On the Treatment of Serous Pleurisy by Paracentesis.

By SAMUEL WEST, M.D.

(*Continued from p.* 101.)

Indications for the Stopping of Paracentesis before the Complete Removal of the Fluid.

THE indications are mainly these,—pain, cough, general distress and faintness, change in the character of the fluid withdrawn, and dyspnœa. These symptoms are most likely to arise when the fluid has been removed rapidly, and especially if the aspirator be used with too much suction; still, they may occur in any case and with every precaution.

1. *Pain.*—This is usually felt after the fluid has been flowing for a short time, commonly beneath the upper part of the sternum, under the clavicle, or in the shoulder, and occasionally underneath the lower part of the sternum or in the præcordial region. It is evidently often severe, for the patient may become very restless with it or even feel faint, and the pulse may become unsteady.

Under such circumstances the flow of fluid should be stopped for a time, and a little brandy given. When the patient has recovered, the flow of fluid may be started again. Sometimes a good deal more fluid may be removed before pain is again experienced, but usually the pain increases directly the flow of fluid recommences, and soon becomes so severe that the operation has to be stopped.

No doubt, in most cases, the pain is due to the stretching of adhesions, which may even be felt by the patient to snap. As soon as the operation is over the pain usually ceases. It may last sometimes for an hour or two, and may then be relieved by a little stimulant and a few minims of opium, or by strapping the side firmly.

2. *Cough* is sometimes very troublesome, and is perhaps the commonest cause of the stopping of the operation. It is dry, short, frequent, painful, and sometimes almost paroxysmal. It usually commences after a certain amount of the fluid has been withdrawn, and becomes worse if the withdrawal of fluid is continued.

It may be due to the irritation of the lung, as it expands, by the cannula, and will then diminish if the needle be slightly drawn out; this measure at any rate should be tried before the operation is stopped. But it is often to be attributed rather to irritation in the lung, consequent on its re-expansion, and to the alteration of the circulation through it.

If the cough be very severe, and if it continue after the needle is removed, a little tincture of opium should be given on the tongue and the side firmly strapped for a few hours.

3. *General distress.*—Sometimes, without either pain or cough, the patient complains of great general discomfort and alarm, and passes into an emotional, almost hysterical, condition, and soon begs that the operation may be stopped, saying that he cannot endure it any longer. Yet the attacks are not hysterical, for in nervous, emotional patients, who dread the operation, the excitement is present before the operation is commenced, and generally ceases as soon as the needle has passed and the fluid flows; whereas, in the cases we are speaking of the condition comes on after the fluid has been flowing for some time, and often in patients who have had no dread of the operation and are phlegmatic rather than nervous, excitable persons. The attacks are very like what are seen in certain cardiac conditions, and they may very likely be of cardiac origin, consequent on the disturbance of the circulation by the removal of the fluid from the pleura. At any rate, they have a real basis and may prove of considerable gravity if disregarded. It is best at once to stop the flow of fluid, and if the symptoms do not pass off quickly, to terminate the operation.

4. *Change in the character of the fluid.*

(*a*) The fluid may become blood-stained. This is due usually to the rupture of some vascular adhesion, or to the tearing of vascular vegetations on the surface of the lung. It is usually developed towards the end of paracentesis. It is rarely more in amount than to stain the fluid red, the color being bright red, like that of recent blood, not dark, as in those cases where the fluid itself has been sometime hæmorrhagic. In those rare cases in which the intercostal artery has been wounded with the needle, the hæmorrhage might of course be copious.

In small amounts it is of no significance, and need not interfere with the completion of the paracentesis; but if it be more than a little, it is well to suspend the operation.

(*b*) *The passage of air with the fluid.*—This means that the lung has been ruptured, and should be an indication for stopping the operation at once, for although if the lung be healthy the mere entry of air into the pleura will do no harm, still if a cavity has been opened it may lead to the passage of the contents of this cavity into the pleura and the conversion of a simple serous effusion into an empyema by infection.

(5) *Dyspnœa.*—This sometimes sets in unexpectedly, and may quickly become considerable; but it is a rare complication.

If the patient complains that the breath feels short, the operation should be suspended for the time; the sensation then as a rule quickly passes off, and the operation may be completed. It is probably more subjective than real, and depends upon the alteration of the circulation through the lungs.

In some rare cases, dyspnœa may be considerable, and attended with some degree of cyanosis. The cause of this is often obscure, but it is sometimes connected with another rare and remarkable occurrence during paracentesis, viz. albuminous expectoration.

Albuminous or serous expectoration.—It sometimes happens that during the paracentesis the patient begins to cough and complain of some shortness of breath, and soon after to expectorate a quantity of clear, frothy fluid. The cough is almost constant, though not very violent or paroxysmal, and with it there is some shortness of breath and occasionally even considerable dyspnœa. Wheezing and crepitation are heard over the lung, usually over the affected side only, but occasionally on both.

After the symptoms have lasted for an hour or two, or perhaps a little longer, they generally subside and the case runs its ordinary course. The condition is probably to be attributed to acute œdema of the lung, and when fatal is probably associated with some organic disease of the lung or some lesion in the pulmonary vessels, *e.g.* thrombosis of the pulmonary artery or vein.

Albuminous expectoration is really very rare. Terillon collected twenty-one cases, chiefly of French origin. Since that time isolated cases have been recorded, but the total number is still quite small, probably under fifty. The figures often quoted give a quite erroneous idea of the real frequency of the affection.

Sudden death in connection with paracentesis.

This is the rarest of all occurrences in pleuritic effusion. If one can judge from recorded cases, it is probably rarer now than it used to be in times past, because in the present day effusions are not allowed to remain so long or to reach so large a size without relief. It may occur at three different periods,—either immediately on the introduction of the needle, during the operation, or shortly after the operation is over. In the first case it is due to shock, and is similar to what is seen, *e.g.*, in puncture of the abdomen. Instances of this very rare event are recorded by Besnier and also by Leichternstern.

Sudden death during the operation, or after it, is to be referred, no doubt, to the same causes as lead to that event before the effusion has been tapped, or to those complications which have just been mentioned as the result of the paracentesis, viz. œdema of the lung and albuminous expectoration.

Physical signs after Paracentesis.

Usually, as the fluid is removed, the lung expands and the organs return to their normal places. Breath and voices sounds become audible in parts where they were absent before, and frequently friction is heard and may be felt, showing that the lung has reached the chest walls and that the two layers of the pleura are actually in contact.

Friction is most frequently heard in the upper part of the chest, or at any rate not in the lowest. It may be audible over nearly the whole side. Usually it disappears in time, as the two layers of the pleura become adherent, but it may continue a long time. I have heard it nine months after paracentesis as plainly and as extensively as at first.

With the return of breath sounds, wheezing and crepitation are also heard, and are no doubt due, in most cases, to some exudation of fluid into the air-tubes. The crepitation may be the result of the opening out of the collapsed air-vesicles, and is then not easy to

distinguish from some forms of pleuritic friction. In either case these physical signs quickly pass off.

The percussion over the upper parts of the chest often becomes markedly tympanitic, so as to suggest the occurrence of pneumothorax, but as the voice and breath sounds are audible, and often in addition crepitation and wheezing are heard, while the more characteristic signs of pneumothorax are absent, it is clear that the tympanitic resonance is connected with the expansion of the lung, and is to be explained, I believe—in the same way as that met with above a pleural effusion or a pneumonic lung—as due to the loss of elastic tone or tension of the lung, the nutrition of which has been impaired by being for some time collapsed.

This hyper-resonance after paracentesis is generally met with in the upper part of the chest in front, but it may occur elsewhere,—for instance, I have seen it behind at the angle of the scapula. It usually passes away in a few hours or so, but it may persist for two or three days. With this hyper-resonance is sometimes associated great exaggeration of the breath sounds, so that they may become bronchial or even amphoric. This, too, is a transitory phenomenon.

Pneumothorax after paracentesis has been already referred to. It is usually due to rupture of the lung, owing to excessive suction being employed with the aspirator. Sometimes, when the intra-thoracic pressure is negative, the air may enter by the needle; for which reason it is wise, if the syphon be employed, that the mouth of the tube should be kept under water, but more commonly if air enters the thorax through the needle it is later, after a certain amount of fluid has been removed.

It has been stated that air may gain access through the skin puncture at the side of the needle. I do not think this is possible, and I certainly have never seen it.

The presence of air in the pleura after paracentesis has also been referred to the exhalation of gas from the fluid.

That the effusion contains much gas, which can be easily sucked out of it, is seen in the aspirator bottle while it is being exhausted. This, however, only occurs when the bottle already contains air, and does not happen if the mouth of the tube by which the exhaustion is being made is below the level of the fluid, or if the bottle be completely full of fluid.

In the same way in the pleura the exhalation of gas from the fluid implies the pre-existence of air already in the pleura, but it does not explain how that air got there.

The presence of air in the pleura is not in itself harmful as long as it is aseptic, for it is readily absorbed. The risk is that the air, in entering the pleura, may carry with it some infective organism and excite some fresh or different kind of inflammation. The source of infection is no doubt to be found in the tubes if they have not been properly cleaned and disinfected, and it is during its passage back through them that the air acquires its infective properties.

In certain cases disinfected air has been deliberately introduced into the pleura with the object of displacing the fluid and replacing it by air, which may be more readily absorbed.

The cases in which this precedure has been recommended are those in which the lung is bound down by adhesion, so that it cannot completely expand to fill the pleura, the space left becoming in consequence refilled with fluid almost as soon as it has been withdrawn. When used in this way the air should be passed through boiled water containing carbolic acid or some other antiseptic, and filtered through cotton-wool.

Experience does not, as a matter of fact, show any material advantage for this method of treatment over that of leaving the fluid there and performing paracentesis when necessary. Indeed the air is quickly absorbed and the fluid returns just as if no air had been introduced. At the same time, this is a method which might be reasonably tried in obstinate cases.

Results of Paracentesis.

The results of paracentesis, when properly carried out, are almost always beneficial. In some cases recovery is very rapid, and a single paracentesis may be sufficient for cure.

Even the removal of quite a small portion of the fluid is often followed by the rapid absorption of the rest. Frequently the operation has to be repeated. No special rules can be laid down as to when and how often paracentesis should be performed, but speaking generally, the indications for its repetition are the same as those for the original operation, except that it is not necessary to wait so long.

There are, in my experience, no objections to repeated paracentesis, and though some writers set their authority against it, I cannot understand their reasons, now that the operation is so free from risk when properly performed.

Treatment by free Incision.

If paracentesis fail to cure an effusion, is there anything else that can be done? The only thing that remains is to lay the side freely open and to put in a drainage-tube,—in fact to treat it in the same way as an empyæma. Whether this is a line of treatment which can be safely adopted will depend upon the nature of the particular case in question. It will of course be quite unsuitable to any case where pleuritic effusion is secondary to some grave disease, as for instance advanced phthisis or mediastinal tumour, and it is practically restricted to cases which are, as far as can be estimated, of simple origin, or if of tubercular nature, to those in which there are no signs of progressive disease.

The objection of course is, that do what we will, it will be found practically impossible to prevent the serous effusion from being converted into an empyema, and although the risks of empyema may not be so great as we have been hitherto accustomed to regard them, still they are certainly greater than those of simple serous effusion. There are but very few cases recorded in which this method of treatment has been adopted. The following is the only case which has occurred within my own experience.

A young lady, aged 31, whose abdomen and right pleura had been full of fluid for more than twelve months, came under my care with the question as to whether anything could be done to relieve her. The fluid had been known to be present for some months, but paracentesis had never been performed, either of the pleura or the abdomen. The case was one evidently of tubercular origin, but there were no signs at the time of any progressive mischief, for although the patient was extremely thin and feeble, yet there was no elevation of temperature or night sweats, no cough or expectoration, nor anything to indicate the presence of phthisis.

The abdomen was tapped, and the fluid did not return. The pleura was tapped repeatedly, in all thirty-nine times in the course of twelve months. At the end of that time the side was laid freely open with the usual antiseptic precautions, and a drainage-tube inserted. The day after the operation the temperature rose, it became hectic and continued hectic for a considerable time.

A week or so after the operation, the fluid, which had hitherto been serous, became purulent, but the discharge was never copious, and the drainage was free, so that the fever did not seem to be due to the condition of the pleura, and it was feared that a fresh outbreak of general tuberculosis had occurred. For three months the patient remained in a very critical condition, but then began gradually to improve, the fluid ceased to be purulent, soon the discharge ceased, and the side was closed, the lung coming out completely, and no external deformity being left.

It is now more than two years ago; the chest still continues perfectly normal, and no fresh signs of any kind have developed, either in the lung or in the pleura, the recovery being, so far as the pleura goes, complete. I understand, however, that lately some fluid has returned in the abdomen, which has required paracentesis on one or two occasions, but in other respects the patient is well.

Shortly after the publication of this case, Dr. Morrison recorded a similar one which had been under his care in the year 1882. Of this case the following is a short summary.

A woman, aged 23, suffering from ovarian tumour, was found to have a right pleural effusion. The abdomen was tapped, but it filled again; the pleura was then tapped, in all six times at intervals of a few days, the quantities removed being twenty-five ounces on the first paracentesis, ninety on the second, and on the remainder twenty on each occasion. Then the side was opened, a drainage-tube inserted, and for five days after the operation the discharge was profuse, the temperature remaining at 100°, as it was before the operation. On the sixth day the discharge suddenly ceased, on the eighth day the tube was removed, and in fourteen days the side appeared to be perfectly well. A few days later ovariotomy was performed, but the patient never rallied from the operation. No post-mortem examination was made.

Recently an important paper has been read before the Clinical Society by Dr. Wilson upon three cases in which the pleura was incised for serous effusion within a few days of the onset of the disease. In the first two cases the patients were well after about ten days. In the third case, which was complicated with influenza and pneumonia, the patient was almost moribund at the time of operation. For some weeks subsequently the temperature continued to rise at night, and some pus was discharged.

About three months later the wound, which had been allowed to close, was reopened, and about four ounces of pus escaped. Drainage was then effectually provided for, and in the end the patient completely recovered, after about nine months from the operation.

These cases show that the risks of laying the pleura open for serous effusion are by no means so great as we might *a priori* expect, a conclusion which is confirmed by the experience of the results of surgical injuries to the thorax. Although the free incision of the pleura is a perfectly justifiable operation in appropriate cases, it does not, however, follow that a large serous effusion should be treated by incision in preference to paracentensis, as Dr. Wilson seems to suggest. The results of paracentesis are satisfactory, and recovery after it is often so rapid that the question of incision need hardly ever be raised; and the operation ought to be reserved only for those cases in which paracentesis has been tried repeatedly and failed. That incision of the side may be safely performed in such cases is an important addition to our knowledge, and I cannot doubt that it will be more frequently practised in the near future; but that is a very different thing from suggesting incision as the routine treatment for serous effusion as it is for empyema. We know, of course, that a careful surgeon, with strict antiseptic precautions, may safely, and often with advantage, open an inflamed knee-joint. At the same time no surgeon, as far as I know, recommends that opening of the knee-joint should be the routine treatment of a case of simple synovitis. The pleura is certainly as important a serous cavity as the knee-joint, and should be dealt with with at least the same amount of caution.

The After Treatment of Pleural Effusions.

The general treatment is directed to restoring the patient to good health by means of change of air, good food, and tonics. It may be wise to send the patient to a warmer climate for a winter or two if that is possible, especially where there is a suspicion of tubercular disease; but many cases do quite well in this country if care be taken of them, but under any circumstances care will be necessary during the cold and changeable months of the year. At the same time there is not much danger of relapse, especially if the pleurisy has been a severe one, for generally the pleuritic cavity is completely obliterated. I have, however, known of one or two instances in which a second effusion has taken place upon the previously affected side.

Special treatment will be directed towards getting the lungs to expand completely, and to remove any contraction of the side which the pleurisy may have resulted in. For this purpose gentle gymnastics are useful, especially such calisthenic exercises as will expand the chest without unnecessarily violent effort.

In the same way walking, rowing, and to some extent mountain climbing, are useful: but the exercise must not be overdone, and must in all cases stop short of actual fatigue.

These aids may be supplemented by methods more especially directed to the lungs. The patient, for example, may be caused to expire under increased pressure, and for this purpose various forms of apparatus have been devised, such as Waldenberg's gasometer, and others. A simple method which I have used with advantage is to cause the patient to breathe through a fairly large tube, the mouth of which is placed at the bottom of a tall jar or jug filled with water, so that expiration is made under a pressure of about eighteen to twenty-four inches of water.

In dealing with the defects left behind by pleuritic effusion, the essential factor in all methods of treatment is time. Time alone will lead to cure or great improvement, without any special methods of treatment at all; for at the best these are but auxiliary. With stiff joints it is surprising what time and patience combined with gentle use will do, and so it is also with the pleura. It is better to trust to time and nature than to have recourse to violent and forcible measures, which, though they may sometimes seem to accelerate recovery, in a large number delay it, and do more harm than good.

The Diagnosis of Strangulated Hernia.

By W. McADAM ECCLES, M.S.(LOND.), F.R.C.S.(ENG.).

I.

INTESTINAL obstruction is a surgical emergency, and it is but rarely that a case of mechanical obstruction left to itself will end in recovery. A strangulated hernia is one of the most common forms of this most dangerous condition. A sac of peritoneum, either pre-existing as the *processus vaginalis testis*, or acquired by long-continued and intermittent expulsive force, protrudes through some spot in the abdominal wall. Into this slips a knuckle or loop of gut, which is returnable either spontaneously, as for instance when the patient assumes the horizontal position, or reducible on taxis applied by the sufferer himself or his surgeon. This class of cases constitutes many of the reducible ruptures.

Again, a piece of bowel, or omentum and bowel, passes through the mouth of the sac, and this time adhesions form between the contents of the sac and the sac wall, or between different parts of the contents themselves, or the bulk of the protruded viscera increases in size, either as the result of chronic inflammation, or deposition of fat, the result being in all cases that they cannot be returned into the abdomen. Here there will exist a simple irreducible hernia.

In a third case a length of intestine is suddenly forced through a narrow mouth and neck into a sac previously empty, or into one which already has some contents. Pressure is liable in such cases to be exercised on the part of the contents which lies in the neck of the sac.

Three highly important and interesting results of this constriction will rapidly ensue. The first is the hernia is irreducible spontaneously, and in many cases even on taxis performed in a properly applied manner. The second is an obstruction to the onward flow of intestinal contents. The third is a marked interference with the circulation through the vessels of the walls of the bowel.

Thus a strangulated hernia may be defined as an irreducible hernia containing gut in which there is obstruction to the lumen of the bowel by pressure from without, together with interference with the circulation through the vessels of the intestine.

It will be noticed that this definition of a strangulated hernia is somewhat different to that which is most usually propounded by authors, in that it presupposes that bowel is nipped in all cases, and that the gripping of omentum alone should not be included under the class of true strangulated herniæ. The reasons for this difference will be sufficiently explained in the succeeding remarks.

The diagnosis of strangulation is of the utmost importance, and any failure in this is almost certain to lead to a fatal result.

Two classes of cases present themselves, those in which the condition is obvious, and those in which the utmost difficulty arises. In order to arrive at a right conclusion in a particular case, it is not only essential that the prominent signs and symptoms produced by strangulation should be thoroughly grasped, but also that the ways in which they may be modified must be clearly understood.

A patient generally consults a medical man on account of one or all of the three cardinal symptoms; these are vomiting, pain, constipation.

There is much sound truth in the saying, that in order to diagnose the existence of any pathological condition it is necessary to know that such a state may be in evidence, and that it might be present in the patient who is undergoing examination.

Therefore, if a person is the subject of any or all of the above symptoms, and particularly so if they are associated with any signs, it is wise to never forget the possible presence of a strangulated hernia, and to positively exclude or diagnose such by carefully examining all likely seats of a protrusion. If this rule were implicitly followed, the lives of patients would be placed in much less danger, the success of treatment more readily secured, and the utmost confidence in the medical attendant established.

Vomiting is a most suggestive symptom of intestinal obstruction. Hardly a case occurs where a loop of bowel is nipped in the mouth of a hernial sac, in which the contents of the stomach, and later of the intestines, are not ejected. This vomiting has certain very distinct characteristics, which serve in a great measure to distinguish it from the same symptom due to other causes.

It is profuse in the amount thrown up. It is persistent, for although there may be remissions they are usually but brief, and the patient will ere long again be troubled. None of the usual remedies for vomiting have any effect, and they are therefore useless. There is, however, one method of staying the vomiting which is most advantageous if used in association with the freeing of the bowel from its strangulation, this is washing out the stomach with water at a temperature of 100° F. This procedure generally causes complete cessation of all vomiting, which result does not always follow the relief of the nipping of the bowel, and it will, moreover, counteract the collapse which may be present.

Again, the vomiting is frequently gushing in its nature, that is to say, the vomited matters are ejected with but little effort. It is true, however, that in the early stages nausea and retching may be marked.

Lastly, the contents of the stomach appear first to be quickly followed by bilious matter, and still later by a very evil-smelling, pultaceous, yellowish brown material which has been termed stercoraceous. It is not fæcal, for it is very rare for true fæces to be vomited, seeing that they are only found in the large intestine. It might be designated fæculent, or fæculoid, but these from the mere

spelling and sound of the words are open to the same objection, and the term stercoraceous had better be retained. The odour of this material is difficult to describe, but once smelt it is not easily forgotten. The cause of the smell is probably largely if not wholly due to the decomposition which occurs in the intestinal contents owing to the action of putrefactive bacteria, and particularly of the *Bacillus coli communis*.

Here it is well to pause and say that to allow the vomit in a patient with intestinal obstruction, particularly when due to strangulated hernia, to become stercoraceous is a very serious matter; for the condition causing the vomiting should have been diagnosed and efficiently treated long before such makes its appearance if the patient has consulted a medical man. Further, to permit the vomiting to continue after the ejected matters have assumed the very characteristic form is, if it may be said without offence, positively reprehensible. Be always suspicious, then, of persistent vomiting in any case, and inquire most carefully for other symptoms and signs of intestinal obstruction.

Pain in strangulated hernia is of two kinds, and occurs in two places. The first variety is of a more or less severe colicky, griping, or twisting nature, which comes on chiefly in paroxysms, and is commonly felt in the abdomen, and frequently about the region of the navel, though sometimes referred to the spine.

The second kind is a continuous pain, which is usually later in its advent. This also is liable, however, to exacerbations. It occurs as a dull aching pain, for the most part felt at the seat of the hernia, but may at times be referred to the umbilicus.

Pain is but rarely absent from a case of strangulated hernia, at any rate in the early stages. If gangrene of the strangled bowel occur the local pain generally ceases, and sometimes a patient may pass into such a condition as to be oblivious to pain as such. It must be further borne in mind that the symptom of pain may be very considerably lessened by the administration of opium, and then a false idea of the disappearance of its cause as well may be indulged in, to the very grave danger of the patient.

Constipation is a symptom to which as a general rule strangulation of bowel leads. The technical term used is that of absolute constipation, by which is implied that neither fæces not yet flatus is passed *per anum*, owing to the lumen of the bowel at the seat of strangulation being so obstructed as to entirely block the onward passage of its contents.

There is a great tendency to regard this symptom as essential to and universal in strangulation, but it must be remembered that if strangulation occurs in the small intestine, it is quite possible, and is in fact not infrequently the case, that the large intestine may empty itself if it contain any fæces at the time the strangulation occurred, and this by even more than one act of defæcation.

Therefore, because of the passage of a motion it is most important not to overlook the existence of obstruction at some point in the intestine. Occasionally even a form of diarrhœa may be present, possibly as the result of some enteritis below the seat of the stricture.

Besides the three cardinal symptoms just discussed, there are others which may follow on, and when taken in conjunction with the others are certainly valuable. Prostration, or collapse, is perhaps the most frequent of these. It varies much in degree in different cases, but, if present, is always a grave matter; and it is very rarely entirely absent. It is manifested by languor, pallor, anxiety, sunken cheeks giving rise to the pinched look which often clearly portrays the typical abdominal *facies*.

Meteorism, or distension of the abdomen caused by the accumulation of gas in the intestines, should also be studied. Its amount depends chiefly upon the site of the obstruction to the gut, being greater the lower the block is, and also upon the length of time the strangulation has been in evidence. If at all considerable, it is a symptom of a serious nature, for it indicates most generally overdistension and paralysis of the bowel, or even the onset of peritonitis.

Eructation and hiccough may be present, the former often ushering in the early symptoms, the latter attending the decease of the patient.

Although the symptoms arising from a strangulated rupture are very significant, the local signs which are manifested are even more so. A swelling may be present in a hernial site, which, if the patient had noticed a protrusion before the onset of strangulation, will probably be said to be larger than it was previously. In some cases no visible tumour is observable, owing either to the bulk of the herniated viscera being very small, or the patient having much adipose tissue, the swelling is obscured. In some cases the protrusion cannot be even palpated, but this is rare in the more ordinary forms of hernia, and thus failure to detect a swelling may be the outcome of imperfect or even entire want of examination.

If the fingers be placed upon the swelling, it will be found to be tense, and this tenseness is a highly characteristic sign. The sac has become a cyst owing to the rapid effusion of fluid into it from the engorged vessels of the intestinal wall; the cavity of the sac is thus distended, and its walls rendered tense. Patients themselves not infrequently remark on the hardness of the swelling as compared with its previous consistence.

While the fingers are palpating the region of the hernia, the patient should be asked to cough if an adult, or made to cry if an infant. The expulsive efforts produced by the resulting contraction of the abdominal muscles will produce in the majority of cases nothing of the characteristic expansile impulse felt in a reducible hernia under such conditions. There may, indeed, be an impulse, but it is only of a forward nature such as may be obtained by placing the fingers on any spot on the anterior abdominal wall while the patient coughs, and it is of very great importance to clearly distinguish between these two varieties of impulse.

Fluctuation as a result of the fluid within the sac can frequently be obtained, especially in the earlier stages before the amount of fluid transuded is very great.

Percussion not seldom gives a dull note over a strangulated hernia, provided sufficient fluid has been exuded to form a layer of some thickness between the contents and the sac wall.

Auscultation, which may have revealed gurgling sounds in the hernia when non-strangulated, will not give any indication of the movement of intestinal contents when the bowel is nipped.

If a case presents all these well-marked signs and symptoms, there ought not to be the slightest hesitation in at once coming to the conclusion that the patient is suffering from a strangulated hernia, and efficient treatment, on which it is not the scope of this paper to enter, should not be withheld for the short space of a few hours. Strangulation, it may be reiterated, is a surgical emergency, and the recovery of the patient brooks no delay in the carrying out of the manipulations or operative procedure necessary to bring it about.

(*To be continued.*)

The Blood Parasites of Malarial Fevers.

By JAMES HUSSEY, M.R.C.S.

A Paper read before the Abernethian Society on November 21st, 1895. (*From the Pathological Laboratory.*)

(*Continued from p.* 104.)

MARCHIAFAVA and Celli in Italy first described the organisms of the more serious summer-autumn fevers, and showed that they possessed many analogies to, and also important differences from, the organisms of the simple intermittents.

But it must be borne in mind that though these conclusions of Golgi and subsequent observers are an essential part of the more widely accepted view of the question, there are good and critical observers, and Laveran is included among the number, who believe that no correlation can be traced between the parasite and the disease and that there is but one parasite, which can assume different forms under different conditions. And the reason for such a remarkable difference of opinion is to some extent to be found in the fact that while Golgi and others have studied simple fevers of definite regular type, Laveran, who worked in Algiers, had to deal with cases which he himself admits were very complex and difficult to classify—a fact which would lead one to expect corresponding complexity in the parasitic forms. On the other hand, we must not forget that arguments from microscopical and transitional forms, without cultivation experiments, are always open to doubt.

As might be expected from the clinical features, the simple spring intermittent fevers are those in which the details of the organism's life history can best be studied, and the consideration of what is known of the tertian or quartan parasite gives the key to the history, so far as it is yet known, of all forms of the organism.

Now a tertian fever, that is one in which there is a regularly recurring febrile attack every other day, is associated with the presence in the blood of one generation of organisms whose life cycle is completed in two days. This is one of the facts which Golgi first clearly showed. So that the rhythm of the fever coincides with the rhythm of the development of the parasite.

If the blood of such a case be examined several hours after the end of a febrile attack, there will be found numerous red corpuscles containing small amœboid unpigmented or slightly pigmented parasites —the small intracorpuscular forms I have already described. If the blood be again examined at intervals of a few hours it will be found that at each examination these endocorpuscular parasites are larger than at the one before. They are also more pigmented, and show gradually less and less amœboid movement, so that their outline becomes circular. The affected corpuscles become gradually swollen and paler. Just before the time at which the next attack is due, the parasites are nearly as large as normal corpuscles, and they begin to show certain changes —namely, an aggregation of the pigment into a mass near the centre, and gradual division of the rest of the cell-substance into a number of small, round, or oval bodies each with a well-marked refractile border and often showing near the centre a small bright dot. By the time these changes have become marked the febrile attack is beginning, and during the attack itself is seen the greater part of this process of division. When the small divisions, or as they must be considered, spores, are fully formed, the remnant of the blood-corpuscle breaks up, and the spores separate from one another and form the pigment and corpuscular débris. If another examination be made some hours later, there will be found again small hyaline amœboid bodies in the corpuscles and the process repeats itself.

So that in tertian fever we have a number of organisms in the blood in about the same stage of development, which, beginning as small intra-corpuscular bodies grow in and at the expense of the corpuscles which are themselves gradually destroyed, and at last when fully developed, *i. e.* about forty-eight hours after they first appear, break up into a number of small segments, which becoming free in the blood, attach themselves to fresh corpuscles and repeat the developmental cycle. And the period of segmentation coincides in a most regular manner with the attacks of pyrexia.

The account given by Golgi of the organisms in quartan fever is precisely analogous, but the life cycle is completed in *three days* instead of two, and there are certain morphological differences described between the two types of parasite. The chief are:—(1) At corresponding stages the quartan organism is rather smaller. (2) The infected corpuscles do not swell up and become pale, but remain natural in size and colour. (3) The pigment granules of the quartan parasite are larger and show less vigorous movement than do those of the tertian. (4) The details of segmentation are rather different:—In quartan fever there are fewer spores formed, about eight or nine, while in tertian there are generally fifteen or sixteen, and the segmentation takes place in a very regular manner by formation of lines of division running radially from the centre to the periphery, so as to give rise to a form originally likened by Golgi to a daisy; in the tertian organism there is not formed a single ring of spores, but rather an irregular mass; the individual spores in quartan fever are larger, and show a more distinct central refractile dot. (5) Lastly, the development of the quartan organism takes place in seventy-two hours.

Except for these differences in detail, the quartan organism is similar to the tertian. It gradually develops after the febrile attack, and segments during the following attack exactly as does the tertian parasite. One may therefore ask with some justice whether the distinctions mentioned by Golgi are sufficient to allow us to speak of different species.

Golgi's explanation of the spring quotidian fevers is very ingenious. They depend upon infection with two generations of tertian parasites a day apart, or three generations of a quartan parasite, also a day apart.

That quotidians might really be double tertians has been known for a long time from clinical features, for, as is well known, the attacks two days apart may resemble one another, but differ in either severity, time of onset, or other features from those on the alternate days. And the study of the parasites in these cases gives very interesting results. The best account of these which I have come across is given in a monograph published this year by Thayer and Hewetson, giving an analysis of 600 cases in which they studied the parasite. They included 188 cases of double tertian infection.

In the great majority of these cases they clearly differentiated two groups of organisms in different stages of development. And they mention two exceedingly interesting facts bearing on this question.

The first is that in quotidian cases with alternating attacks differing in severity, *i. e.* with a marked attack one day and a slight one the next, rest in bed may be enough to kill off one of the groups of organisms (the weaker of course), so that the subsequent fever is of the tertian type.

Secondly, it has been found that the maximum effect of quinine is produced when administered just at the time of segmentation of the parasites, they being then more susceptible to its action than at other times. And so, if in a double tertian case a dose of quinine be given just before an attack, this may suffice to destroy the generation of organisms causing the attack while the half-developed group survive, the fever subsequently being of the tertian type.

So in all the spring intermittent fevers we have to deal with precisely analogous organisms, undergoing the same developmental changes.

In the more serious malarial fevers—those which occur in the more markedly malarious districts, especially in the tropics,—there are difficulties in the study of the parasites which do not exist in the case of the spring agues. These fevers, though often showing more or less marked intermission or remission at the commencement tend soon to lose this recurrent character, so that a complicated more or less irregular fever results. And the malignancy of the infection often leads to marked special symptoms, such, for instance, as coma; and just as these facts have led to great confusion clinically so they render the tracing of the life history of their parasites a very difficult matter. And it is to be remembered that in most of the worst malarial districts no systematic study of the disease has been carried out.

In parts of Europe, especially Italy and in America, these more serious fevers have lately been studied in considerable detail, and to the whole group the name of *summer-autumn fevers* has been given.

It was Marchiafava who first applied Golgi's work on the intermittent fevers to these summer-autumn fevers, and he described two types of parasite—a *quotidian* which completed its life cycle in twenty-four hours, and gave rise to daily paroxysms (which therefore are of quite different nature to the spring quotidians), and secondly, a *tertian*. Morphologically, the description of these two parasites is practically identical, and this again would seem to throw some doubt on the narrower view of the distinct specificity of plasmodia for each type of fever.

Mannaberg and others seem to confirm the existence of these two types of parasite, but quite recently, Thayer, in the monograph to which I just now referred, states that he is quite unable to satisfy himself of the existence of two types, the difficulties of the investigation rendering the stages of development very obscure.

The question is not of great importance in view of the similarity of the two organisms (if there be two), so we may perhaps consider what are the main features of the parasites of the whole group. In many essential features these are like the tertian and quartan organisms. The youngest forms are very small hyaloid bodies attached to the red corpuscles. These frequently appear first as small ring-shaped bodies, which soon show very active amœboid movement. They gradually increase in size, but remain smaller than the other types of parasite, so that when fully developed they may not fill more than one third of the blood-corpuscle. After a time they show pigment dots, but this pigmentation does not occur till much later than in the spring organisms, and remains less in amount throughout. The infected corpuscles tend to be much distorted and shrivelled and to become of a greenish yellow—"brass" colour, as it has been called. When fully developed, the pigment is seen to collect in the centre, and this change occurs, generally speaking, before the febrile paroxysm or exacerbation.

Beyond this stage the development cannot be traced in the circulating blood, for the later stages take place in the internal organs, especially the spleen. This fact marks a great pathological difference between these parasites and those of the spring agues (though even in these latter the segmenting forms tend to accumulate internally).

The further stages of development have been described from blood taken from the spleen by a hypodermic needle. In this way and by examination of organs post mortem it has been shown that the adult organisms with central pigment segment in a manner precisely analogous to the other forms of parasite, the pigment being left with the other débris on separation of the segments.

So, then, it is almost generally agreed that in all the fevers so far studied—intermittent, remittent, and continuous—there is this recurring development of generations of parasites in the blood, the stage of segmentation corresponding to the febrile attack or exacerbation. In the more irregular or continuous fevers the parasites are irregular in their development, and so are found at any one time, in many stages, though perhaps there may still be groups which, maturing together, cause a rise in temperature.

In all cases this developmental cycle is essentially the same; in all cases the organisms resemble one another very closely, though in some details they differ.

But it will be noticed that in this life cycle neither crescentic bodies nor flagellate forms occur. What is the meaning of these?

What part do they take in the history of the parasite? These are questions which unfortunately have not yet received complete answers. For this reason, and for the sake of simplicity, I have left what little there is to say about these forms till the present point.

In the intermittent fevers many of the organisms do not, on becoming mature, segment in the manner I have described. Some seem to become free in the plasma and gradually degenerate and break up. But sometimes from an adult free parasite a short time after removal of the blood from the body there are seen violent movements in the pigment particles, and then there are suddenly shot forth one or more long flagella, which lash about vigorously, and may break off and swim about freely in the plasma.

These flagellate forms are regarded by many of those who have written upon the subject as degenerate forms, and the movement as a phenomenon occurring on the the death of the organism. The flagella have been compared to the artificial processes which can be produced in red corpuscles by heat, but most observers are agreed that they are utterly unlike these.

But another idea, which whether true or not is a very interesting one, suggests that these forms play some part in the life of the organism outside the body. This part of the life history of the parasites is at present utterly obscure. That they must live somewhere other than in human blood is obvious, but where and in what form is unknown.

Dock, Mannaberg, and others have suggested this meaning for the flagellate bodies,—that they are forms capable of living elsewhere than in the blood, and forming the first step in an existence outside the body which is to end in forms capable of again infecting the blood. More than this it is impossible to say on the question at the present time.

In the summer-autumn fevers, similarly, all the adult parasites do not form spores. Some increase in size and alter in shape, so as to form first oval and then spindle-shaped bodies inside the corpuscles. These bodies differ considerably in appearance from the ordinary endocorpuscular parasites. Their substance is hyaline, and they have a very refractile border. They are considerable larger than the ordinary forms of the parasite. Eventually these bodies tend

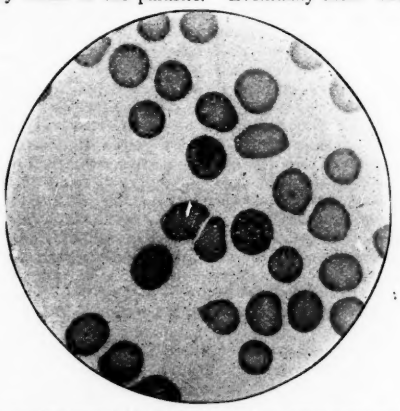

FIG. 1.—Specimen of blood taken seventeen hours after the febrile attack in a case of tertian ague. Two of the corpuscles contain plasmodia, one small, the other about half filling the corpuscle. The pigment granules are not very obvious, but the more intense staining peripherally is well seen.

to become crescent-shaped, and in this form constitute the crescentic bodies of which we have already spoken. The appearance of these is highly characteristic. They are large—their greatest length about the diameter of a red corpuscle,—the cell substance is very transparent, and their border so refractive as to give rise to appearances which have been taken for those of an actual membranous wall. The pigment is grouped together near the middle of the cell body, and the remains of the corpuscle in which the crescent was formed can often be seen as a delicate membrane-like structure in the concavity of the crescent.

This process of conversion of adult intracorpuscular forms occurs exclusively in the spleen and other internal organs, though the fully-formed crescents circulate in the blood. The conversion occurs *only* in association with the parasite of the summer-autumn fevers, and never in the history of the ordinary tertian and quartan parasites. In the summer-autumn fevers crescents never appear at the commencement of the disease, but only after five days or more.

As to the real nature of these bodies and their subsequent history, as little is known as of the flagellate forms. They are supposed, on the one hand, to be degenerate forms, and, on the other, to be capable of actual segmentation, and the production of a fresh generation of ordinary parasites. In any case it seems to be fairly certain that these crescentic or ovoid bodies may gradually change their form until they again become spherical, and that these spherical bodies may give rise to flagella exactly as do the adult free parasites of tertian and quartan fevers.

The important points as to the crescents to be borne in mind are:—That they occur only in the summer-autumn fevers; that they only appear in these after the disease has existed for a certain time; that they only persist in the blood after all the ordinary endocorpuscular forms have disappeared, and may thus be present for some time after the cessation of fever; and that in any case where present their appearance is most striking and characteristic, so that they are often far more obvious than are the small perhaps unpigmented amœboid forms.

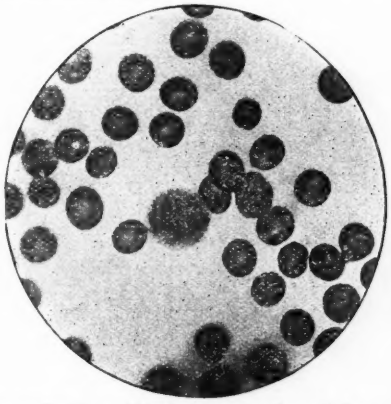

FIG. 2.—Specimen of blood taken a few hours before a febrile attack. A large plasmodium with well-marked pigment granules is seen nearly filling one of the corpuscles, the remains of this latter being quite obvious on the left side. In the centre of the field is a finely granular eosinophilous leucocyte.

I had intended to made a few remarks as to the part played by phagocytes in the life history of the parasites, but it is enough to say that all forms of parasite may be found in the phagocytes, and that apart from the pigmented and other débris the forms principally attacked are those in which the blood-corpuscle is either destroyed or greatly changed by the action of the parasite. The flagellate forms also are frequently absorbed by leucocytes, but the young intracorpuscular forms scarcely ever. The pigment itself after being taken up by the leucocytes is deposited in the spleen and other organs, and gives rise to the visceral pigmentation so common in long-standing cases of malaria.

The only point which is of any great interest in the minute structure of the parasites is the question whether or not they possess a nucleus. They certainly have no distinct definitely staining nucleus like that of a leucocyte. But as a general rule the intracorpuscular parasites show in stained specimens a more deeply-stained periphery with an almost unstained central area. At the junction of these two is frequently seen a small deeply-stained dot. Most of the recent writers on the subject interpret these appearances as a bladder-like nucleus, the clear central area with a small amount of chromatin forming the small stained dot or nucleolus. And Mannaberg, who has paid considerable attention to these details, describes a process of diffusion of this nucleolus into the body of the parasite preparatory to spore formation, the nucleolar structure apparently dividing up and forming the bright spots which may be seen in the parasite during spore formation, and in the spores themselves after their separation.

I have myself never seen anything in the least like a nucleus, though it is very common to get marked peripheral staining. I should not think anything of the fact were it not that the pictures, which Mannaberg and others have published of the nucleus, are vague in the extreme—indeed, almost as open to question as are the appearances in ordinary specimens.

In one of the specimens under the microscope (from an out-patient here) there is in all the parasites (and they are very numerous) an appearance such as I have never seen either represented or in other

specimens. These parasites are all intra-corpuscular, and fill about half the area of the affected corpuscles. They form complete rings with nearly all the cell substance on one side of the ring. On the opposite side, at the thinnest part of the ring, is a small, oval, highly refractile dot, which can be quite plainly seen in one of the photographs reproduced. As to the meaning of the appearance I am quite uncertain.

On the whole, then, I think that taking into consideration the vagueness of accounts, and the absence of definite appearances in actual specimens, too much stress must not be laid upon our knowledge of the minute structure of the parasite.

The more purely biological nature of the parasites has scarcely enough bearing on medicine to render it necessary to consider this here. Suffice it to say that biologists of the eminence of Metschnikoff are still unagreed as to the exact position of the organisms in the animal kingdom, though they are generally believed to be more closely allied to the Sporozoa then to any other class of unicellular animals.

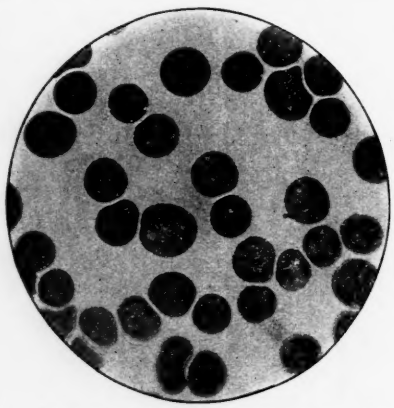

FIG. 3.—Specimen of blood taken twenty-four hours before an attack of tertian fever. The plasmodium shows on the left side the clear unstained circular area referred to in the text. The ring-shape of the whole plasmodium is not well seen in the reproduction.

Certain corpuscular organisms bearing a strong resemblance to the malarial parasites have been described in the blood of other animals, especially birds and amphibia by Ray Lankester and others. And special interest attaches to the recent descriptions of such organisms in birds of malarial districts. Up to the present time the exact bearings of these on the hæmatozoa in man has not been determined, but they may be expected to throw much light on the biology of the human parasite.

Relation of Parasite to the Disease and its Symptoms.

Having thus considered the appearances and the main points in the nature and development of these organisms, the point which at once suggests itself is this,—What is the nature of the relation between the parasite and the disease. Is the parasite, in fact, the cause of the disease?

Now in the case of disease depending or bacterial parasites there are certain rigid test conditions, originally enunciated by Koch, which, being satisfied, give actual proof of the causal relation between an organism and the disease with which it is associated. But we have in malaria to deal—not with a bacillus—not, indeed, with a vegetable organism at all, and it would seem likely on the face of things that conditions applicable to one class of parasite might be useless in investigations of organisms belonging to a totally different class. And, in fact, the fundamental point that the malarial parasite has never been cultivated in artificial media renders quite inoperative the processes of investigation applied to bacteria. And, at present, similar satisfactory test conditions applicable to these malarial parasites have not been devised.

However, there are many points which are at least strongly suggestive of a causal relation between the parasites and malaria. In the first place, the parasites have been found in malarial cases in all parts of the globe where examinations have been made. And they are found, if sufficiently careful search be made, in the vast majority of cases. Secondly, the parasite is never found except in malaria cases. Thirdly, two of the main symptoms of malaria, the *anæmia* and *pigmentation* of blood and viscera, are obviously due to the action of the parasite. Fourthly, under the action of quinine the organisms disappear from the blood as the fever is cured. And, lastly, inoculation of blood containing the parasite into man leads to malaria in the person so treated, and to the presence in him of parasites similar to those from the patient from whom the blood was taken.

Many of the main symptoms of the disease receive an immediate explanation from the life-history and action of the parasite.

The nature of the fever certainly is not obvious. It coincides with the maturation of a generation of parasites in the intermittent fevers, and the more irregular types are generally associated with a corresponding complexity in the parasites, so that there may be present organisms in all stages of development. But the actual nature of the production of the fever is at present undetermined. It is generally supposed that during spore formation certain toxic, fever-causing products are formed and liberated in the blood, but the view is, I think, based on nothing more than pure theory and analogy.

But the other marked symptoms of the disease, the anæmia and the pigmentation of the viscera, are obviously dependent on the direct action of the parasites on the corpuscles, which themselves are destroyed and of which the hæmoglobin is assimilated and digested by the parasite, the useless residue being excreted as melanin; this melanin being set free after spore formation, is taken up by the leucocytes and eventually deposited in the internal organs. Before the discovery of the parasite, great attention had been paid to the pigmentation, and it was commonly thought to arise in the spleen.

The anæmia may be very extreme and very rapidly produced, and, as would be expected from its production, is characterised by a parallel diminution in hæmoglobin and number of red cells. In one case the red cells on the fourth day of the disease were 3,000,000 per c.mm., and hæmoglobin 60 per cent. On the seventh day the corpuscles were 2,000,000 and hæmoglobin 45 per cent.—an extremely rapid alteration.

The symptoms of the pernicious cases are often referable to the presence of the parasite in the affected organs. In the rapidly fatal cases with coma and other cerebral symptoms, sections of the brain show that the capillaries are loaded with pigmented parasites in the corpuscles, and though the exact mode of production is uncertain, this may be supposed to have a considerable bearing on the important symptoms.

The malarial parasite, then, throws considerable light on the nature of the symptoms, and it will in a way explain another marked feature of the disease, and that is its tendency to recur. Between attacks far apart there are ordinarily no changes to be seen in the blood, and it is supposed that some of the organisms in the form of spores or otherwise remain in the internal organs (possibly the marrow or spleen) till some adverse circumstances enable them to flourish again in the body of the patient. And bearing on this may be remembered the well known fact that anything which lowers the condition of one who has had malaria will tend to bring about a recurrence.

The bearing of the Parasitology on Diagnosis and Treatment.

The discovery and elucidation of the nature of the parasites have, therefore, absolutely cleared up many obscure features of malaria. Of their ultimate effects on our knowledge of this disease and on medicine generally we cannot yet judge, but it has already proved an almost inestimable boon to those who have to practise medicine in malarial districts, for it gives what has hitherto been entirely wanting —a means of absolute diagnosis of the disease, and this is of no little value, even in England. We have here in the wards many obscure febrile cases in those who have been exposed to malarial infection, whose diagnosis may be cleared up at once by an extremely simple blood examination.

The temperature chart in a case of phthisis or other suppurative condition may be by no means unlike that of a quotidian ague. And, on the other hand, the chart of a continued malarial fever may be indistinguishable from one of typhoid. And in the absence, as is so common, of very definite signs of these conditions, the diagnosis may be a matter of considerable difficulty. But the presence in the blood of a single parasite is conclusive evidence of the presence of malaria, whatever else there be.

The result, if the blood examination be negative, is not so decisive. But if several blood examinations at short intervals in a case of fever fail to reveal any abnormal conditions in the blood, I think one may go so far as to say that the cause of the fever is something other than malaria. Of course, a single negative examination means little. From what I have already said, it will be seen that at some periods of the fever there will be less probability of finding the parasite than at others, and the amount of blood examined is so very small that,

unless numerous, the presence of the organisms may easily be overlooked.

Of the unfortunately very limited number of cases I have examined myself lately, there were two who appeared to have malaria in whom I repeatedly failed to find the parasite. And both these cases it turned out had other disease—one apical phthisis, and the other cystitis. Whether these conditions constituted the whole disease or not, I do not know, but any rate there was other cause than malaria for the temperature.

But in addition to its value in differential diagnosis, much may be learnt as to the nature and probable course of a case of malaria from examining the blood. Golgi has shown that, other things being equal, the severity of the disease is proportionate to the number of parasites in the blood. And the severity will likewise depend on the variety of parasites found. If a large number of small endocorpuscular forms with crescents be found, the case is sure to be more severe than one in which there are but few of the large tertian or quartan forms.

The onset of the paroxysm may in a simple intermittent be prophesied almost with certainty (assuming quinine be not given).

There was a case in the hospital lately which illustrated this point very well. Soon after admission the blood showed very numerous parasites, all filling about one half of the corpuscles. Seventeen hours after, the man had a fit with a temperature of 105°. Twelve hours after this, the blood showed only a few large swollen extracellular forms and no young parasites at all. And although the patient remained in for several days he had no other paroxysms.

So, then, from the diagnostic point of view the parasite is of great interest. As Osler says, "meanwhile advantage may be taken of its constant presence in malaria. This alone, without reference to the true nature of the organism, is a fact of the highest importance. To be able, everywhere and under all circumstances, to differentiate between malaria and other forms of fevers is one of the most important advances which have been made of late years in practical medicine."

The effects of the discovery of the parasite on the treatment of malaria have been necessarily limited by the fact that the most efficient of all our specific remedies had already long been used empirically. Cinchona has been used in Europe for the treatment of agues since the seventeenth century. And so the discoverers of the malarial parasite have been deprived of the additional glory of discovering the rational therapeutics of the disease. But at any rate it is more satisfactory to have some idea what a drug is doing than to be totally in the dark as to its mode of action, and so the question of the effect of cinchona or its alkaloids comes to be of some interest.

Early in the history of the parasite, Laveran found that a very weak solution of quinine rapidly stopped all movements in the parasite. But so, unfortunately, does almost any foreign substance, water or salt solution for instance, added to the blood—as Marchiafava and others showed.

Since then, Mannaberg, Golgi, and many others have studied the blood in patients treated with cinchona, with the result of a unanimous agreement that administration of quinine kills the parasites.

If the blood be examined some hours after the administration of say 10 grains of quinine in a case which should show amœboid forms, these are found to have lost their amœboid movement, many of them are disintegrated and form small fragments inside the corpuscles. But quinine administered just before an attack does not prevent the segmentation of the organisms, and hence does not prevent the attack, but the spores formed are subsequently destroyed. Indeed, Golgi has shown that it is the newly-formed spores which are most susceptible to the action of quinine, so that if the maximum effects are required from *one* dose of quinine, the time to give it is just before a febrile paroxysm.

And the nature of the action of the drug has a practical bearing on the mode of its administration. For it seems certain that, for the proper action to take place, a certain strength of solution of the drug in the blood is necessary. Hence the more rapidly the drug is absorbed, the more effective will it be, and hence also it follows that the best method of administration where rapid results are required is that of intravenous injection, which lately has been very successfully used in the gravest forms of the disease.

The illustrations appended to this paper are pictures of actual specimens of malarial hæmatozoa, and are intended to give an idea of the appearances to be looked for in the blood of a malarial patient. They are photographs taken by Messrs. J. W. Roughton and C. H. Cosens—a $\frac{1}{12}$ inch apochromatic objective eye-piece being used. The specimens from which the photographs were taken were obtained from cases in Matthew Ward during the past year.

It was not thought advisable to reproduce a systematic series of pictures or diagrams, as these can be readily referred to in various works on the subject.

The Bibliography of malaria is a very large one, several hundred additions having been made to it in the last few years. The following, in addition to various recent articles in the medical journals, are the works, in English, in which the best accounts of the malarial parasites are to be found:

1. LAVERAN *Paludism*, New Sydenham Soc., 1893.

2. MARCHIAFAVA AND BIGNAMI, *The Summer-Autumn Malarial Fevers*, New Sydenham Soc., 1894.

3. MANNABERG, *The Malarial Parasites*, New Sydenham Soc., 1894.

4. THAYER AND HEWETSON, "The Malarial Fevers of Baltimore," *Johns Hopkins Univ. Reports*, 1895.

Notes.

AN entirely novel Exhibition is to be held at St. Martin's Town Hall, London, from June 1st to June 13th, which should prove extremely popular and interesting. It is proposed to show the many useful and ingenious instruments and dressings by means of which the modern Trained Nurse is enabled to carry out medical directions for the alleviation and cure of illness or injury. For example, there will be Nursing Appliances as employed in the chief General and Special Hospitals of the United Kingdom; Model Beds and other Furniture for the Sick Room and the Hospital Ward; Nursing Uniforms and Dress; Hospital Certificates, Medals, and Badges for Nurses. The methods in use at the hundreds of Hospitals in the United Kingdom differ so greatly that such an Exhibition should not only be of much interest, but also of much educational value to the large numbers of women now engaged in Nursing. To medical men and the public also, the Exhibition will, doubtless, prove both interesting and novel. A Nursing Conference is to be held at the same place and date for the discussion of various matters of much professional and public importance, and the scheme is being organised by Mrs. Bedford Fenwick, late Matron of St. Bartholomew's Hospital, and editor of our contemporary. *The Nursing Record.*

* * *

IT APPEARS from the reply of Sir J. Gorst in the House of Commons on May 7th to a question of Sir A. Rollitt, that a Bill for the reconstitution of the University of London is now being prepared in the Privy Council Office, but that it has not yet received the approval of the Government.

* * *

R. SEVESTRE, late House Physician to Dr. Church, has recently been admitted to the degree of M.D. of the University of Cambridge.

* * *

DR. E. P. PATON, late Assistant Demonstrator of Anatomy, has been elected Surgical Registrar to the Westminster Hospital.

* * *

EVERY ONE'S attention is again drawn to the Amalgamated Clubs' Dinner on June 6th, which will follow the Past *v.* Present Cricket and Lawn Tennis Matches.

ALL Bart.'s men who knew him will deeply regret to hear of the death of Mr. Fraser-Luckie. There are few men who leave behind them so many personal friends.

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AMONGST the "Calls to the Bar" at the Middle Temple on April 29th, we notice the name of Dr. Frederick J. Waldo, D.P.H., Medical Officer of Health, Middle and Inner Temple, and St. George's Southwark.

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DR. KANTHACK, whose motto for the Jacksonian Prize Essay we reproduce elsewhere by reason of its originality, has been appointed Deputy Professor of Pathology at Cambridge for this term on account of Professor Roy's illness. Dr. Kanthack is therefore, by the sanction of the Governors and Almoners of the Hospital, and the Medical Committee, dividing his duties between Bart.'s and Cambridge. Dr. Kanthack will be at Bart.'s on Tuesdays, Wednesdays, and Saturdays, and at Cambridge on Mondays, Thursdays, and Fridays.

* * *

THE course of Elementary and D.P.H. Bacteriology began on Tuesday, May 12th. The class meets on Tuesdays, Wednesdays, and Fridays at 1.45 p.m. Fridays being devoted to practical work entirely under the direction of the Treasurer's Student in Pathology, Mr. J. W. W. Stephens. The Elementary course will be continued until the middle of June; the D.P.H. course until the middle of July.

* * *

GENTLEMEN desirous to work in the Pathological Laboratory for the Surgical Registrar, are requested to communicate with Mr. Berry at once.

* * *

GENTLEMEN desirous to work in the Pathological Laboratory for Dr. Kanthack (Medical Morbid Histology) are requested to communicate with the museum assistant, Ernest Shaw.

* * *

NEW REGULATIONS for the Entrance Examination to the Army Medical Service have recently been issued. In future the more professional parts of the Entrance Examination are to receive more weight, 1200 marks each being given for Medicine and Surgery, instead of 1000 marks as hitherto. Anatomy and Physiology will receive 600 marks instead of 1000, and Chemistry and Materia Medica will receive 600 instead of 1000. In the voluntary part of the examination, again, more marks will be obtainable, viz. 200 each for French and German (instead of 150), and 300 each for two Sciences (instead of 300 altogether). In the Science part of the Examination, candidates will be allowed to choose *two only* of the Sciences, Physics, Zoology, Geology and Physical Geography, and Botany. The new regulations are undoubtedly an improvement, and we are glad to find that Medicine and Surgery are in future to have each double the value of one of the other compulsory subjects.

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THE Examiners have decided not to award the Wix Prize.

MR. P. FURNIVALL has been elected Assistant Surgeon to the Metropolitan Hospital.

* * *

DR. HARRY CAMPBELL has been elected a Fellow of the Royal College of Physicians.

* * *

WE CONGRATULATE Mr. S. GILLIES most heartily on having obtained the Murchison Scholarship of the Royal College of Physicians.

Amalgamated Clubs.

NEW MEMBERS.

H. A. Woodruffe.	W. P. Price.
P. H. Scholberg.	F. W. Cheese.
L. M. Morris.	L. C. Ferguson.
P. H. Ross.	M. B. Scott.
E. A. Ellis.	A. C. Young.
F. Weber.	E. G. Pringle.
C. S. Woodwark.	A. C. Brown.

ASSOCIATION FOOTBALL CLUB.

HOSPITAL CHALLENGE CUP.—SEMI-FINAL.

ST. BARTHOLOMEW'S HOSPITAL *v.* LONDON HOSPITAL.

This match was played at Leyton before a large number of spectators, many of whom were from London Hospital, the students of which turned out in great force. St. Bartholomew's came out fairly easy victors by 4—0.

Play was started by London, but possession was obtained by Joy, and the latter passing to Waterhouse play was transferred to the opponents' end where Willett, after some good tactics, allowed Woodbridge to shoot—the ball, however, going behind. London now attacked very vigorously, good play being performed by the centre half, but they seldom got within shooting distance. After this Bart.'s scored the first point by Woodbridge from a good shot, and a few minutes after Willett, from a good run, put the ball into the net. The score at half time was 2—0 in Bart.'s favour. After half-time London played up very well indeed, and after a run Green sent in a shot, which, however, just cleared the post. Bart.'s then waking up took the ball down by the medium of Hay, and the latter centreing, Willett took possession, and by an excellent use of the power of extension possessed in his limbs, put the ball into the net. The Bart.'s goalkeeper, Fox, after this had to save once or twice, but none of the shots were very deadly, and before time Bart.'s had again scored by Waterhouse, who with Talbot had been doing excellent work on the right.

Time was called with the score 4—0 in our favour, Bart.'s thus qualifying for the final *v.* Mary's.

The exhibition of play by Bart.'s was fairly good throughout, the forwards especially were very good, since Willett was playing for the first time for a month, and the combination was, if anything, better than before.

Team.—E. H. B. Fox, goal; R. P. Brown and L. E. Whitaker, backs; A. H. Bostock, N. H. Joy and H. J. Pickering, half-backs; T. H. Talbot, R. Waterhouse, J. A. Willett, E. W. Woodbridge, and A. Hay, forwards.

HOSPITAL CHALLENGE CUP.—FINAL.

Tuesday, Feb. 17th.—ST. BARTHOLOMEW'S HOSPITAL *v.* MARY'S HOSPITAL.

This Cup Tie took place at Leyton before a very large number of partisans of both hospitals, as well as those of others. The game was expected to be of an exciting character, as both teams had been playing very well just before; but, as was anticipated by most, the Bart.'s team came out victorious by 3—1.

Mary's kicked off, and started at a very great pace, but were pulled up by Pickering, who, giving to Hay, the latter quickly transferred to the opponents' end, only to end in a goal kick. Mary's kept up a stubborn attack, and playing with the wind well behind them, looked very dangerous, till finally, Cruise passing to Sworder, the latter got well away, and sent in a shot which Fox was unable to reach. This made Bart.'s more energetic, and before the end of ten minutes, Willett, by a good pass from Woodbridge, put the ball into

the net, thus making the score 1—1. Play then ruled fast and furious, and two appeals against Sharples were allowed for foul play, but no result followed till half-time, as Mary's were kept well in their own half.

On re-starting, play again became fast, but it soon became apparent that the Bart.'s team were in better condition than their opponents, who were becoming more and more fagged. Runs were made repeatedly by Hay and Talbot, the latter putting in some exceedingly good and fast work on the outside right, until Robinson, getting possession, sent in a shot which beat Gover; the score then standing 2—1 in Bart.'s favour. After this, Bart.'s kept on pressing, Mary's seldom getting away, and, until time was called only becoming dangerous once, while the former sent in shot after shot, which gave the Mary's goalkeeper ample opportunity to show his excellence, until Robinson, by a good shot, scored another point for Bart.'s.

Until the whistle blew for time Bart.'s held their opponents well in hand, and at call of time came out victorious by 3—1, thus winning the Hospital Challenge Cup for the season 1895-6, being the second year they have held it consecutively.

TEAMS.

St. Mary's.—W. A. Gover, goal; F. D. Conry and J. Sharples, backs; G. R. Cox, F. F. Lobb, and H. Vickers, half-backs; E. G. Sworder, W. Ferris, R. R. Cruise, W. R. Flint, and R. C. Leaning, forwards.

St. Bart.'s.—E. H. B. Fox, goal; R. P. Brown and L. E. Whitaker, backs; A. H. Bostock, N. H. Joy, and H. J. Pickering, half-backs; A. Hay, E. W. Woodbridge, J. A. Willett, C. A. Robinson, and T. H. Talbot, forwards.

Linesmen.—W. A. Cox and J. F. Fernie.

Referee.—C. W. de Lyons Pike.

CRICKET CLUB, 1896.

The prospects for this season do not at first sight appear very encouraging. We have lost three members of last year's team, and several others will not be able to play regularly owing to examinations. This is the more unfortunate as we have an exceptionally good fixture card. However, there are several "Freshers" of good repute who we hope will "come off." We are, as usual, badly in want of bowlers, though we have a fairly strong batting side. The nets are up for practice every day, and it is hoped that all who can will take advantage of this.

The draw for the Inter-Hospital Cup has not yet taken place.

We have as yet not received many applications for places in the "Past" Team for June 6th, but there is no reason to doubt that it will be a strong side.

Dr. J. J. Vanthack's Motto.

JACKSONIAN PRIZE ESSAY FOR 1895.

TETANUS.

"What are these,
So wither'd, and so wild in their attire;
That look not like the inhabitants o' the earth,
And yet are on't?"—*Macbeth, Act* 1, *Sc.* 3.

View Day.

VIEW DAY comes but once a year, etc. Well it came on May 13th, and struck the casual observer as being neither better nor worse than its predecessors. There were the usual groups of pretty girls, chaperoned and unchaperoned, making the Square gay with their presence; Pa and Ma promenading up and down, and no doubt comparing their young stalwart with others of a similar species. Much as usual, too, was the procession of Governors marching in solemn state from ward to ward, headed by the Treasurer and Matron; the same questions asked, the same answers given, and alas! the same old chestnuts that Adam cracked before woman took to bloomers. One kindly face away whose absence tinged our joy with just that touch of sorrow that makes us friends and brothers,—Mark Morris has gone,—'twill be well if we can make so good a going.

The habit of moralising in a "mere reporter" does not, however, impress his editor, so here's to a description of the scene.

First the Square, improved since last year by the removal of trampled flower-beds and the substitution of shelters, which in turn have been improved,—thanks, I believe, to the kindness of one of the Governors,—by hanging baskets of flowers at the several corners; filled with scarlet and pink geraniums, they looked distinctly bright and cheerful Second, the wards—well, I may as well say at once that our reception (*I dared not go alone*) was anything but flattering; we went to admire, and succeeded in doing so to a limited extent, but alas! we were not admired. Indeed it stuck me as quite extraordinary, so great was the malevolence we occasionally met with; however, several invitations to tea soothed our ruffled spirits and tempered these remarks with a little more sugar than they might otherwise have possessed. The scheme of decoration was, I understand, limited by the want of variety at Covent Garden, whither a large proportion of the Nursing Staff went at some absurd hour in the morning. (I went myself once, more to see the nurses than to get any flowers, and have ever since been trying to find out which were the dearer.) Irises, purple and gold, there were in abundance, together with occasional departures into tulips and lilac; very pretty they all looked too, if not elaborate, and elaboration in art is considered by the powers that be, bad form—that is, just at present, for two or three years ago a distinctly healthy rivalry existed between the various wards, fighting for supremacy in beauty, the result being some unusually artistic effects of floral decoration. Someone unfortunately called rivalry, jealousy, and this unhappy misunderstanding of the English language hit elaboration on the head, there was an extravasation of wrath—and elaboration died, poor dear. President was agreed on all hands to be the prettiest, and it certainly looked charming with its delicate pink muslin and trailing ivy; numerous bamboo rods decked with flowers, and placed at the different angles, added to the pretty effect. Elizabeth also pink and white, with some very pretty appleblossom over the fireplace, and a marvellous floral trophy in one corner. Mark looked delightful with painted panels, and ivy wreaths with large pots of marguerites. Pitcairn was a study in dark blue, and in being possessed of a Trilby table-cloth was distinctly up to date. Sitwell had olive green table-covers, on which were large bunches of rhododendron and white broom, our attention being also directed to an old-fashioned grog bowl, alas with no grog. Without doubt the fashionable colours were green and yellow; but were all the wonderful beauties to be told in detail, much space would be required, and a much abler pen than mine to tell them. Suffice it, that among the wards especially well arranged we noticed Martha, white and pale green, with a baby in the same colour, Lucas, Darker, the scarlet coats of the patients enhancing the effect, Harley and John. Sister John was unfortunately away, a fact which to many would spoil the beauty of any mere decoration; but we can only hope that her health, which has been far from satisfactory of late, will be greatly improved by the change.

I need scarcely add that there was tea, and tea in abundance, while one ward, Charity, had a novelty in the way of iced coffee, a happy idea considering that the heat of the day combined with the climbing of an excessive number of stairs made locomotion rather a thirsty amusement. I understand that there was a big dinner in the evening, but you must really ask the Editor all about that, as the commoner press were not invited.

View Day Dinner.

THE Annual Dinner which follows the formal procession of the Treasurer and Governors through the Hospital, was held on May 13th.

The dinner was, as usual, excellent, and the attendance used to the full the resources of the Great Hall.

The first toast, that of "Her Majesty the Queen, the Prince and Princess of Wales, and all the Royal Family," was given by the Treasurer—Sir Trevor Lawrence,—who presided at the Dinner. The Treasurer alluded to the visit which the Prince and Princess of Wales

had paid to the Hospital since the last View Dinner, and remarked that the Princess of Wales spoke individually to every patient in the wards visited by Her Royal Highness.

The second toast—that of "Prosperity to St. Bartholomew's Hospital, and Health and Ease to the Poor Patients,"—was also given by the Treasurer, who, in his speech gave, as is usual, a *résumé* of the work of the Hospital during the past year, and foreshadowed several changes likely to occur during the coming year. He first referred to the unfortunate coincidence of the Dinner of the Royal College of Surgeons with our View Dinner, stating that our claim to the second Wednesday in May was based on two important grounds, —the standing orders of the Hospital, and immemorial custom. Sir Trevor gave the figures of the work done by the Hospital during the year, and contrasted them with the figures of the previous year. They were as follows:

	1895.	1894.
In patients	7306 ...	7006
Out patients	15,792 ...	15,192
Casualty patients	143,271 ...	144,610
Maternity patients	1520 ...	1617

The Samaritan Fund had supplied 360 patients with money, 222 with clothing, 111 with money and clothing, and 569 with surgical appliances. The Samaritan Fund, Sir Trevor said, was of incalculable value in aiding patients who had been kept long in the Hospital and who, having lost their situations, would otherwise be destitute on leaving.

Patients had been sent to convalescent homes to the number of 965. Of these 896 had been sent to Swanley. Thus one out of every eight patients had enjoyed the advantages of a convalescent home. The Staff of the Hospital—medical and surgical—numbered 66, and there were 26 teachers in the school as well as 26 members of the Staff. The female Staff numbered 348, the total number of persons employed in the business of the Hospital being 625.

Referring to the finances of the Hospital, Sir Trevor spoke of the effect of the present agricultural depression, our income from agricultural land in 1877 having been £12,180, as contrasted with £5475 in 1895, a fall of 55 per cent. An outlay of £4135 had been made upon small house property in London, and though this seemed a large amount there was the gratifying result that our tenants have better and more wholesome houses to live in, which can be pointed to as a credit to the Hospital. As a hospital St. Bartholomew's should set an example in its management to all medical institutions in the country, and a recollection of this fact underlay all the work done by the governing body.

An important change had been made in the Medical Staff of the Hospital by the appointment of a fifth Physician and Assistant Physician, and two House Physicians. Sir Trevor congratulated the Hospital on having secured, for the post of Physician, a man so eminent in his profession as Dr. Lauder Brunton. Sir Trevor referred with regret to the resignation by Mr. Alfred Willett of the Joint-Lectureship on Surgery.

An important announcement was made by the Treasurer in regard to the Junior Staff. Representations had been made to the authorities to the effect that St. Bart.'s did not do for their Resident Staff as much as was done by other hospitals with attached Medical Schools. The Governors had given a great amount of consideration to the question, and had decided to increase the expenditure upon the Resident Staff by £600 a year, either by increasing the salaries or by completely boarding the Residents.

The change would date from the 1st of October next, and such an allowance would be made to the Junior Staff as would be tantamount to giving them a fair and reasonable board. Arrangements would be made with the College Manciple, which would lead to his supplying the Resident Staff at a fixed tariff, and in such a way as would give them complete satisfaction. It had been agreed unanimously, that if done at all it must be done in such a way as to give *complete satisfaction*. It was hoped that the burden of the increased expenditure would not be a permanent one, but would ultimately be borne by an alteration of other salaries. This, however, could not take place until the end of a considerable number of years.

Turning to the appearance of our square—which, by the way, Sir Trevor alluded to by the unfamiliar name of "Quadrangle" (we are nothing if not Conservative at Bart.'s),—the new shelters were spoken of as a great improvement, and the pleasing announcement was made that Mr. Marson, a Governor, had very kindly supplied the baskets of flowers hanging from the corners of the shelters, and had agreed to keep them full of flowers throughout the summer. The kindness of Mr. Homan and Mr. Marson would do much to hasten the recovery of our patients.

The New Pharmacopœia of the Hospital, and the establishment in the Electrical Department of the necessary apparatus to make a satisfactory use of the discovery of the X rays, were mentioned by Sir Trevor as likely to be of considerable advantage to the Hospital.

The work at Swanley had undergone some change, inasmuch as patients were now sent there in a much earlier stage of convalescence than formerly. This had necessitated the construction of a new Dispensary there in place of the cupboard in which drugs had been previously kept.

Sir Trevor alluded sympathetically to the loss the Hospital had sustained by the death of that old and valued servant, Mr. Mark Morris, who had served the Hospital for over half a century. He trusted that his successor, brought up in Mr. Mark Morris's school, would be as good and valued a servant.

The Nursing Staff of the Hospital came in for a well-deserved eulogy, the Treasurer remarking that the Nurses were proud of their connection with a Hospital whose Nursing Staff could not be beaten in the world anywhere. Sir Trevor concluded by congratulating Dr. Kanthack on his new laurels in the shape of the Jacksonian Prize; Dr. Kanthack had secured so high a position in pathology that he had been asked to take the place of Professor Roy at Cambridge during his illness.

The toast of the "Medical and Surgical Staff of the Hospital," was proposed by Sir Cameron Gull, M.P. As a Governor of Guy's, Sir Cameron was filled with envy, desire, and covetousness in learning the satisfactory state of our resources. He would almost wish that some of our income could be transferred to that struggling institution, Guy's Hospital. (Laughter and applause.)

Sir Cameron dilated upon the advantages of Medicine over Law. He said that the knowledge gained by the medical profession, unlike that of the law, could not be set aside even by the howls of anti-vaccinators, whereas law was liable to be over-ridden by the House of Lords, or by what is euphemistically called "the superior wisdom" of the Houses of Parliament. The speaker feared lest the use of the X rays should convert the consultation-room into the confessional. He coupled with the toast the names of Dr. Church and Mr. Howard Marsh.

Dr. Church spoke of the occasion as the only opportunity the Staff had of officially meeting the Governors as a body. Both had at heart one and the same object—the welfare of the Hospital. Many years ago the Staff made a recommendation to the Governors that the Medical Staff should be made equal in number to the Surgical. All were glad that the recommendation had at last been carried into effect. Dr. Church had on the same occasion as the present, twelve months ago, advised the Governors that they could not do better than advance the scientific work of the Hospital. He was sorry to hear that no Governor had as yet come forward to endow a Chair of Pathology. A great university, being in want of a professor, had asked Dr. Kanthack to supply the place temporarily. But for the Treasurer's appointment of a Research Student, the Medical Committee could not, in the interests of the patients, have allowed our Pathologist to take the appointment. They felt, however, that the interests of the Pathological Laboratory would be safeguarded by Mr. Stephens in Dr. Kanthack's absence. The Pathological Department would, Dr. Church said, soon require extension. Dr. Church endorsed the Treasurer's remarks with regard to the death of Mr. Mark Morris. If ever a man fulfilled the duties of his office satisfactorily, that man was Mark Morris. This was owing to Mr. Mark Morris's extraordinary judgment and wonderful tact.

Mr. Marsh, in a humorous speech, explained the absence of some members of the Senior Staff at the College of Surgeons Dinner in Lincoln's Inn. One-fifth of the Council of the College were members of the Bart.'s Staff. They could not be hosts at Lincoln's Inn and guests at the View Dinner at Bart.'s at the same time, and they certainly could not eat two dinners. It had been suggested that each of the Senior Staff should submit to an operation by their Juniors, which should enable a part to be at Lincoln's Inn and a part at Bart.'s. This plan the Senior Staff had not taken kindly to. Besides, they were reminded of Baron Munchausen's horse, which had been divided by the fall of a portcullis; had the Senior Staff come to the dinner with the drinking power possessed by Baron Munchausen's horse after the operation, there would certainly have been no wine for anyone else. Mr. Marsh spoke pathetically of the loss of Mr. Mark Morris, who, he said, on leaving the hospital in a cab, for the last time, kissed his hand to the hospital. Mr. Marsh wished the Governors—in the words of the Barmaid—"'Ealth, which after personal appearance is the greatest blessing as is."

Lord Hobhouse gave the toast of the "Treasurer and Almoners of St. Bartholomew's Hospital." His Lordship referred to the great interest he had always taken in our Hospital, and spoke of the great

work that was done within its walls. "He served God best who served mankind best." The names of Sir Trevor Lawrence and Mr. Baker were coupled with the toast.

Sir Trevor Lawrence, in replying, stated that he traced his own connection with the Hospital for more than half a century. With his father's life and his own they would between them soon complete the century.

Mr. Baker spoke of the absence of Mr. Wire, whose illness compelled him to go abroad. In July next he would complete his twelfth year of almonership. Years ago, he said, there existed officers connected with the Hospital called scrutineers; their duty was to remind scriveners to avail themselves of their opportunities of persuading testators to remember this charity in disposing of their wealth. He thought that, in these days, though there were no scrutineers, it would be well that testators should be kept informed of the great work done by this Hospital. "Although our revenues are large, our aims are still larger." He proposed the toast of "Our Visitors" coupling with it the name of the Right Hon. the Earl Waldegrave.

The Earl Waldegrave replied briefly, and was followed by Canon Covington, who gave the toast of "The Prize Winners and Students," with the names of Messrs. Gillies and Horder.

Mr. Gillies spoke in approval of the resolution of the Governors to improve the condition of Residents in the Hospital. He was glad that it could no longer be a reproach to the Hospital, that the best men were prevented from becoming members of the Junior Staff for financial reasons.

In the intervals between the speeches several songs were charmingly sung by Mrs. Helen Trust, Signor Aldo Antonietti rendered several pieces in good style on the violin, and Signora Antonietti played the piano accompaniments.

Round the Fountain.

By LINCOLN CRANBORNE.

"THE miserable conceit of cliques is getting wearisome," remarked the Chronic. "Every one is a member of some particular set, each one of which considers itself superior to its fellows."

"What do you mean by clique"? inquired the Enthusiast, somewhat anxiously.

"I mean," replied the Chronic, "the formation into sets, which strive as far as possible to be exclusive, of a number of men of similar tastes and habits. For instance, here are some: The various athletic cliques, the 'Varsity clique, the pious clique, the sporting clique, and the clique of excessive imbecility."

"You might add," suggested the Fresher, "as a subdivision, those who go to Miss Cross's, to the Hall, and to other lunch places."

"My main objection to such a condition," continued the Chronic, "lies in the fact that it limits the interchange of ideas; for example, I, as a member of the football set, am prevented from ascertaining the opinion of apparent piety upon the system of four three-quarters."

"I agree with you," said the Enthusiast, "in thinking that good-fellowship is less marked here than it ought to be."

"Why," asked the Fresher, "does the M.B. man despise the college man? because it seems to me, that a capacity for reading ten hours a day does not denote a more advanced intellectual state than a capacity for reading only one."

"I should have thought," replied the Enthusiast, with an obvious sneer, "that increased capacity for work meant increased intellectual power."

"There you are wrong," put in the Chronic. "Some of the cleverest men of the day have little or no talent for prolonged study. Indeed, I take it that the most necessary part of a man's education, and especially a doctor's, namely, the study of character, requires no great burrowing in books: and that brings me to what I consider the great drawback of our profession. I mean narrow-mindedness, accompanied too frequently by gross general stupidity. Put the average medical student, of four or five years' standing, in a room when the conversation happens to be in the least degree intellectual. Put him there, I say, and where is he?——"

"In a room," murmured the Fresher.

"——Why his vacuous expression would shame a sheep: MANNERS too! the natural outcome of a general education, are frequently frightfully impaired if not totally absent. Yes, 'tis a big step from the surgery to the salon, and few there are to make it.

"You are hard on your profession," remarked the Enthusiast, "too hard; there is little enough time to study and keep pace with recent advances in medicine, without spending a large part of it uttering platitudes in the palaces of the rich."

"Ah, yes," retorted the Chronic, moving away, "you are coming on as house surgeon, I believe? 'twill be as well if, unlike some of them, you can treat a fracture without qualifying for the kitchen."

"That spots the Current," laughed the Fresher. "But I see the senior demonstrator of anatomy coming out of the school, and as his ideas on work are somewhat at variance with——"

"Quite so," interrupted the Enthusiast," you had better run; I will undertake to cover your retreat."

Appointments.

CALVERLEY, J. E. G., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Metropolitan Hospital.

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HAMPTON, T., M.R.C.S., L.R.C.P., has been appointed House Physician to the Metropolitan Hospital.

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FALKENER, L., M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to the Metropolitan Hospital.

* * *

TOYE, E. J., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Metropolitan Hospital.

* * *

BLANDFORD, J. GUTHRIE, M.B.Cantab., D.P.H., has been appointed Fifth Assistant Medical Officer to the London County Lunatic Asylum at Banstead.

* * *

RAWLINGS, J. D., M.B.(Lond.), M.R.C.S., L.R.C.P., appointed House Physician to the General Lying-in Hospital, York Road.

* * *

BLAGDEN, J. J., M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the Taunton and Somerset Hospital.

* * *

FORMAN, G. H., M.R.C.S., L.R.C.P., appointed Junior House Physician to the General Hospital, Nottingham.

* * *

BURNETT, L. B., M.A., B.C.(Cantab.), M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the Leicester Infirmary.

* * *

MAW, H. S., L.S.A. appointed House Surgeon to the Teignmouth Hospital.

* * *

SNOW, L. M., M.R.C.S., L.S.A., appointed Medical Officer to the Second District of the Horsham Union.

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CARSON, W. H., M.R.C.S., L.R.C.P., appointed Resident Medical Officer, Tottenham Hospital.

* * *

RECKS, HENRY, M.R.C.S., L.R.C.P., appointed Medical Officer of the Steyning Union Workhouse.

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CROSS, W. F., M.R.C.S., L.R.C.P., appointed House Surgeon to the Tottenham Hospital.

* * *

WALSHAM, HUGH, M.A., M.B.(Cantab.), M.R.C.P., has been appointed Assistant Physician to the Victoria Park Hospital for Diseases of the Chest.

* * *

PAXTON, F. V., M.B.(Oxon.), M.R.C.P., has been appointed Consulting Physician to the Chichester Infirmary.

* * *

SADLER, F., M.B., B.Ch.(Oxon.), has been appointed Honorary Surgeon to the Beckett Hospital and Dispensary, Barnsley.

* * *

WIGHTMAN, J. P., L.R.C.P., F.R.C.S., has been appointed Medical Officer of Health for Rawdon, near Leeds.

* * *

SYMONS, W. H., D.P.H.(Oxon.), has been appointed Medical Officer of Health for Bath.

H. F. HYDE, M.B.(Camb.), M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the General Infirmary, Worcester.

* * *

GILL, SAMUEL E., M.B.Lond., L.R.C.P., M.R.C.S., has been appointed Resident Medical Officer to the Royal Hospital for Diseases of the Chest, City Road.

* * *

CHAVE, T. ANSTEY, M.R.C.S., L.R.C.P., has been appointed Clinical Assistant to St. Luke's Hospital for Lunatics.

* * *

STRICKLAND, CHARLES, R.N., to H.M.S. Mohawk, May 2nd.

* * *

PHILLIPS, LL. C. P., M.B., B.C., B.A.Cantab., M.R.C.S., L.R.C.P., has been appointed House Physician to the Royal Free Hospital.

Examinations.

FINAL L.S.A.—T. B. Bokenham has passed in Medicine and Midwifery.

* * *

D.P.H. CAMBRIDGE.—G. F. Collins, J. G. Blandford, A. M. Mitchell, and J. N. Cook have recently taken this diploma.

* * *

FIRST CONJOINT—*Biology.*—The following have passed:—H. Adams, E. Adams, H. E. Ashley, A. H. Bostock, T. M. Body, A. Butler, F. M. Bishop, C. L. Chalk, A. T. Compton, H. Duncan, V. J. Duigan, S. de Carteret, E. A. Donaldson-Sim, A. B. Edwards, F. H. Ellis, G. F. Furley, C. R. A. Grimshaw, L. Green, V. C. Heseltine, E. L. Hughes, G. J. Humphreys, R. J. Hanbury, W. J. G. Johnson, N. Leonard, N. Lipscomb, R. A. Lloyd, H. N. Massett, W. P. Miles, A. K. Pollock, P. M. Perkins, W. G. Paget, J. F. Robertson, F. M. P. Rice, H. H. Serpell, G. M. Seagrove, R. Thorne-Thorne, A. R. Tweedie, F. E. Tayler, R. H. R. Whittaker, T. Young, E. G. Smith, M. G. Winder, E. C. Hepper.

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FIRST CONJOINT—*Materia Medica and Pharmacy.*—R. N. Geach, C. A. R. Provis, W. H. Cazaly, A. L. Scott, E. G. Smith.

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FIRST CONJOINT—*Chemistry and Physics.*—G. S. A. S. Wynne.

* * *

FIRST CONJOINT—*Elementary Physiology.*—A. Thompson.

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FIRST M.B.DURHAM—*Chemistry and Physics.*—A. R. Baker.

* * *

SECOND M.B.DURHAM.—W. J. Codrington and M. D. Wood.

* * *

SECOND CONJOINT—*Anatomy and Physiology.*—G. P. Tayler, L. A. Walker, J. M. Collyns, T. H. Gandy, S. R. Scott, W. H. Leonard, R. H. Vincent, C. S. Frost, W. E. G. Maltby, R. E. H. Woodforde, W. S. Danks, H. S. Thomas, J. A. Willett, A. Thompson.

* * *

SECOND CONJOINT—*Anatomy only.*—F. R. Eddison, W. S. A. Bell, J. S. Gayner.

* * *

THIRD M.B.CAMBRIDGE—*Part I, Surgery and Midwifery.*—W. L. Brown, H. Williamson, J. B. Hughes, R. F. Baird, H. J. Bumsted, H. C. T. Langdon, W. L. Duckworth, T. H. Molesworth, H. J. R. Twigg, C. F. Lillie, H. W. P. Young.

* * *

THIRD M.B.CAMBRIDGE—*Part II, Medicine.*—H. W. Lance, R. D. Parker, A. G. Penny, H. C. Selby, A. B. Ward, and G. Webb.

* * *

FINAL M.R.C.S., L.R.C.P.—The following having completed the examination in Surgery, Medicine and Midwifery, have obtained their diplomas:—E. Folliott, J. J. Blagden, J. Brock, S. R. Douglas, J. J. Murphy, A. B. Ward, G. H. W. Ellacombe, T. J. Horder, J. A. O. Briggs, C. H. Hopkins, E. G. D. Drury, T. A. Chave, E. G. Simmonds, J. T. Anderson, E. Pratt, J. A. Spear, J. C. Powell, H. C. Wimble, C. M. Welburn, G. H. Forman, A. R. J. Douglas, H. R. Ellis.

Cases of Special Interest.

Medical.

Luke, bed 7.—Embolic hemiplegia.
Luke, bed 9.—Double aortic murmur.
Luke, bed 15.—Disease of pons Varolii.
Matthew, bed 12.—Subcutaneous rheumatic nodules.
Matthew, bed 9.—Pernicious anæmia.
Matthew, bed 8.—Disseminated sclerosis.
Colston, bed 24.—Leucocythæmia splenica.
Colston, bed 16.—Exophthalmic goitre.
Rahere, bed 18.—Aortic and mitral disease.
Faith, bed 20.—Scurvy rickets.
Faith, bed 15.—Tubercular peritonitis.
Hope, bed 12.—Lead poisoning.
Hope, bed 7.—? Cirrhosis of liver.
John, bed 13.—Chronic tubal nephritis.
John, bed 18.—Pemphigus.
John, bed 15.—Ulcerative endocarditis.
Elizabeth, bed 21.—Morbus cordis.

Pathological Department of the Journal.

SPECIMENS sent by subscribers to the JOURNAL will be examined in the Pathological Laboratory and a report furnished under the supervision of Dr. Kanthack, at the following rate:

	s.	d.
Ordinary examination, Bacteriological or Pathological, such as tumour, membrane, or sputum .	2	6
Ordinary (qualitative) urine examination . . .	2	6

Any further report will be charged for at a special rate. If a mounted specimen is desired an extra charge of 1s. will be made. If a telegraphic report is required, the cost of the telegram will be charged in addition.

Specimens must be accompanied by the fee and a stamped addressed envelope, in which the report will be sent as soon as possible. Specimens, with, if possible, a short history of the case, must be addressed to "The Manager of the Journal," with "Pathological Department" written in some conspicuous place on the wrapper.

On application to E. H. Shaw, Museum Assistant, a set of bottles containing hardening fluids, and ready for sending away by post, can be obtained on remitting a postal order for *2s. 6d.*

Clinical Lectures for the Summer Session.

Medical.—Fridays, at 1 p.m.
May 8th.—Dr. Church.
" 15th.—Dr. Gee.
" 22nd.—Sir D. Duckworth.
" 29th.—Dr. Hensley.
June 5th.—Dr. Brunton.
" 12th.—Dr. Church.
" 19th.—Dr. Gee.
" 26th.—Sir D. Duckworth.
July 3rd.—Dr. Hensley.
" 10th.—Dr. Brunton.

Surgical.—Wednesdays, at 2.45 p.m.
May 6th.—Mr. Smith.
" 20th.—Mr. Smith.
" 27th.—Mr. Willett.
June 3rd.—Mr. Willett.
" 10th.—Mr. Willett.
" 17th.—Mr. Marsh.
" 24th.—Mr. Marsh.
July 1st.—Mr. Marsh.
" 8th.—Mr. Butlin.
" 15th.—Mr. Butlin.

Obituary.

WILLIAM SQUARE, F.R.C.S.

Many old Bartholomew's men will hear with deep regret of the death of this well known and highly esteemed surgeon, which took place on April 18th, after a short illness from pneumonia, at his residence in Plymouth, at the age of fifty-two. Mr. Square was the eldest son of the late Mr. W. S. Square, F.R.C.S., a distinguished provincial surgeon, and brother to Mr. J. Elliot Square, F.R.C.S., names identified with St. Bartholomew's. He was educated at Rugby, matriculated at the London University, and received his professional education at Bart.'s, where he was Senior Scholar in 1866, and Sir James Paget's House Surgeon in 1867. He became M.R.C.S. in 1866 and F.R C.S. in 1871. He particularly distinguished himself as an operating surgeon, and up to the time of his death was surgeon to the South Devon and East Cornwall Hospital, having been appointed on the retirement of his father from that position about ten years ago. Amongst other appointments, he held those of surgeon to the Royal Eye Infirmary and to the Fire Brigade, and Consulting Surgeon to the Provident Dispensary. Last year he was appointed president of the Plymouth Medical Society. He was a man of great power and activity, blunt and outspoken, but most kind to all who were in real distress or trouble. His goodness of heart and personal worth endeared him to a wide circle of professional and private friends. We take the following from the *Western Morning News*:—"Of the late Mr. Square it may truly be said that he was a man of many parts. He was gifted with an extraordinary memory, and whenever that failed him, his rare imagination stood him in good stead. It was these endowments which made him such a genial companion and such a versatile conversationalist. Although a very good *raconteur*, he never told a story against anyone nor uttered an ill-natured expression. He was an ardent sportsman, whilst as a fisherman, and more recently as a cyclist, his imprudent disregard for the safety of his own health proved a constant source of anxiety to his friends. To give pleasure to others was his greatest delight, and for this he would sing a song, tell a tale, work up a lecture,—often upon a subject with which he had little or no previous acquaintance,—and spare neither time nor money in arranging some theatrical performance or in stirring up interest in some philanthropic movement. One of his hobbies was the cultivation of flowers, and he was frequently a prize-winner at local horticultural shows. He was immensely fond of travelling, one of his latest expeditions being to the Pyramids, an expedition which recently formed the subject of a characteristic lecture before the members of the Plymouth Institution." The respect in which he was held was manifested by the very large gathering, representative of every profession and of every class, who followed him to the grave. He leaves a widow and three children,—a boy and two girls.

HENRY O'NAGHTEN FRASER LUCKIE, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond.

All who knew Henry O'Naghten Fraser Luckie will hear with a sense of personal loss that he died of phthisis on the 5th of May. The knowledge that death came as a happy release after many months of illness takes away some of the sting of sorrow. In December, 1894, he took his degree of M.B.Lond. After a holiday spent in Italy and the Riviera he returned to London; and in March, 1895, entered into partnership with Mr. Coomber at Fakenham in Norfolk. He had an attack of influenza about a month after starting his new practice, and took a short holiday at Brighton. He had a second attack of influenza before he had properly recovered from the first, and went on to Lowestoft; but anxious to get back to work, he returned to Fakenham in a weak state of health. A long drive in the early hours of a raw May morning, to an urgent case, gave him a fresh chill and started a pneumonic phthisis, affecting the whole of his left lung and the upper lobe of the right lung. Dr. Burton-Fanning, of Norwich, saw him, and a slide, full of tubercle bacilli, confirmed the diagnosis. When Luckie knew that he had phthisis he decided to come home. He gave up his partnership and returned to London early in June. Under the care of Drs. Calvert and Cautley he gained ground for about two months, then began to get worse again, and went down to Brighton, but did not improve. He returned to London and went on to Bordighera in October. For a time he rallied, but in December he developed tubercular laryngitis. He moved to San Remo and remained under the care of Dr. Michael Foster. As he was getting steadily worse he came home on February 18th. He gradually sank, and on Easter Monday developed a pneumothorax. His heart failing towards the end, he passed quietly away at 1.15 p.m. on Tuesday, the 5th of May. He was buried, at noon, in Wandsworth Cemetery on May 9th, 1896.

Fraser Luckie was educated at the, now defunct, International College at Isleworth. Mr. Ladell, the well-known Rugby football player, was head-master; under his influence Luckie soon developed into an exceptionally fine half-back, and was captain of the first XV when it contained such men as Everard and Allport, and was probably the strongest school team in England. He also rowed No. 3 in the school four-oar. On leaving school, for a short time he was in an office in the City, but finding that the life did not suit him he gave up business and entered at Bart.'s in 1884. He played for the Hospital in the Cup-ties for two years, and for Blackheath in 1886-7, but during that season dislocated the acromial end of his clavicle and gave up football for several years. In 1891-2 he, anxious as he ever was to give a helping hand, became captain of the Hospital second team, and played regularly. Always fond of the water, he kept up his rowing and joined the London Rowing Club, gaining his seniority by rowing bow in the winning crew of the Junior Eights in the Metropolitan Regatta of 1891. He was one of the founders of the Hospital Swimming and Water-Polo Club, and for two years played "back" for the team. Military matters interested him intensely, and for some years he was an enthusiastic member of the London Scottish Volunteers. Many of the older members of our Boxing Club were enabled to realise what a great advantage his long reach and quick eye gave him.

The reasons for Fraser Luckie's great popularity were not hard to discover. Gifted with a sunny nature, his cheery voice and merry laugh put everyone into a good temper at once. When one got to know him one found that any kind of deceit was hateful to him; he would never tell a society lie; and it was most interesting to see him get out of a difficult situation without hypocrisy, and yet without hurting anybody's feelings. His sound common sense and powers of observation enabled him to tackle difficult problems, both in his work and in his life, with success. He was a sportsman of the purest type, always willing to give a beginner a hint, or to do a friend a good turn. His fine physique and natural aptitude for sport enabled him to "keep his end of the stick up," to use his own words, at any game.

"Toff" was a nickname given to him by A. W. Lemarchand, chiefly because vanity in dress or anything else was not a failing of Luckie's. His splendid pluck and kindly nature were very evident all through his long and trying illness. What a trial nine weary months in bed must have been to such an active man, one can hardly realise: but Luckie never once complained; and when the end came he passed quietly away, leaving, in the lives of many folks who knew him, a blank which will never be filled.

Correspondence.

To the Editor of St. Bartholomew's Hospital Journal.

Inversion of the Uterus.

Dear Sir,—Your correspondents need only refer to the paper by Dr. Matthews Duncan, read before the Obstetrical Society of Edinburgh, March 27th, 1867, and reprinted in his *Mechanism of Natural and Morbid Parturition*, p. 277, for an answer to most of their questions. On p. 292 he says, "Four kinds of uterine inversion occur after delivery:—(1) spontaneous passive uterine inversion; (2) artificial passive uterine inversion; (3) spontaneous active uterine inversion; (4) artificial active uterine inversion."

The following is a summary of the facts:

1. Spontaneous passive inversion. The first two words require explanation; "spontaneous" in all these varieties means the opposite to "artificial." "Spontaneous" means that the woman produces the inversion unaided; "artificial" means that she produces it with the aid of the attendant. "Passive" means the opposite to "active." "Passive" means that the whole uterus is relaxed; "active" means that the final stage of inversion is completed by uterine contraction. No inversion can take place if the whole uterus is contracted. For inversion to be possible either (*a*) the whole uterus (= "passive"), or (*b*) the placental site (= "active") must be relaxed. In "spontaneous passive" inversion (*a*) the whole uterus is relaxed; (*β*) the inversion is produced by bearing down.

2. In "artificial passive" (*a*) the whole uterus is relaxed; (*β*) the

attendant produces the inversion by (i) traction on the cord, or (ii) pressing the uterus unskilfully from above.

3. In "spontaneous active" inversion (α) the placental site is relaxed; (β) bearing down produces *introversion* or cupping of the fundus, which is then within the uterine cavity, and is seized by the uterus, treated as a foreign body, and expelled, turning the uterus inside out.

4. In "artificial active" inversion, (α) the placental site is relaxed; (β) the attendant produces the inversion by (i) traction on the cord; (ii) pressing the uterus unskilfully from above. Introversion is produced and converted into complete inversion as in 3.

	Name.	*Predisposing cause (state of uterus).*	*Exciting cause.*	*Attendant.*
1.	"Spontaneous passive"	All relaxed	Bearing down	Not to blame.
2.	"Artificial passive"	All relaxed	(1) Traction on cord. (2) Unskilful pressure from above	To blame.
3.	"Spontaneous active"	Placental site relaxed	(a) Bearing down producing introversion. (b) Expulsion of introverted part by uterine contractions	Not to blame.
4.	"Artificial active"	Placental site relaxed	(a) (1) Traction on cord producing introversion (2) Unskilful pressure from above producing introversion (b) Expulsion of introverted part by uterine contractions	To blame.

"Spontaneous" inversion is occasionally produced in case of fibroids; the uterus seizes on the "foreign body," and in expelling it turns itself inside out. We have such cases in "Martha" from time to time. It is not very uncommon to have the first stage of this variety, where "cupping of the fundus" is produced. In such cases the uterus is shortened before removal of the tumour, and becomes longer after its removal. We had such a case the other day. "Spontaneous," "artificial," "passive," and "active" are not, I think, very happily chosen terms. They really mean "not caused by the attendant," "caused by the attendant," "altogether relaxed" (uterus), "partially relaxed" (uterus) respectively; and I think "passive spontaneous," "passive artificial," "active spontaneous," "active artificial," would have been a better order. The duty of the attendant in dealing with an inversion is to *reduce it at once*, and generally to peel off the placenta first. The recently inverted uterus *can always be replaced*.

The question as to the attendant is not one between "doctor" and "midwife," but between skill and want of skill. All doctors are not skilful, and all midwives are not unskilful.

I hope I have made the matter clear, but Dr. Matthews Duncan's writings ought not to be unknown to St. Bartholomew's men. Moreover, if they had not the advantage of being his pupils, they have at least the opportunity of hearing all that I have written above every year during the summer session. But then medical students of the present day are expected to spend all their time in deglutition, leaving very little for either mastication, insalivation, digestion, or assimilation. I am sorry. I invite all inquirers to the present course.

F. H. CHAMPNEYS.

ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editor of St. Bartholomew's Hospital Journal.

DEAR SIR,—As Honorary Local Secretary for the Royal Medical Benevolent College in this district, I naturally take a considerable interest in the welfare and prosperity of that excellent institution, but I take even more interest in it as an old Bart.'s man, for I am sorry to say that it hardly ever happens that there are not, among the candidates for its foundation scholarships, one or more sons of old Bart.'s men who have died without being able to leave adequate provision for the education of their children.

Two years ago two boys were candidates, whose fathers, before they died, had been honoured members of the St. Bartholomew's Hospital Sixth Contemporary Club. This fact was mentioned at the Annual Dinner of the Club, and the consequence was that, chiefly by the votes and interest of those members who were subscribers to the institution, these two boys were elected to foundation scholarships at Epsom College in the first year of their candidature.

This excellent result showed how much good might be done if Bart.'s men who were subscribers would only combine in a common resolve to vote for any sons of old students of their Alma Mater who happened to be candidates. Recognising that the Club to which I belong, the Sixth Contemporary, furnished a common rallying-point, so to speak, and also that the more subscribers we had amongst us the more good we could do, I, with the consent and approval of our Honorary Secretaries, issued an appeal to those members of the Club who did not already subscribe, asking them to do so in future, and to give the votes thus acquired to the sons of old Bart.'s men. I found that about sixty of our members were already subscribers, and my appeal issued to the remainder resulted in the acquisition of more than thirty new annual subscribers of one guinea, all more or less pledged to vote for the sons of old Bart.'s men.

I undertook to let the members of our Club who are subscribers know, as soon as the voting papers are issued, what sons of old Bart.'s men were candidates, so that they might know for whom to vote. This year there are three, or possibly four on the list, and I am afraid there are sure to be one or more every year.

My chief object in writing this letter is to remind the Hon. Secs. of the other St. Bartholomew's Hospital Contemporary Clubs that the organisation of the Club affords them an opportunity of bringing the matter before their fellow members, and of taking advantage of that love of their Alma Mater which is inherent in every old Bart.'s man, and which my own experience has proved can be easily aroused in the interest of a most deserving institution generally, and of the sons of old Bart.'s men in particular.—I remain, sir, yours faithfully, E. C. CRIPPS.

CIRENCESTER; *April 23rd*, 1896.

Births.

GRANT.—On April 30th, at 8, Upper Wimpole Street, W., the wife of Dundas Grant, M.A., M.D., F.R.C.S., of a son.

HURRY.—On April 29th, at Abbotsbrook, Reading, the wife of Jamieson B. Hurry, M.A., M.D., of a daughter.

ROYDEN.—March 21st, at Burgh St. Margaret's, nr. Great Yarmouth, the wife of William Royden, M.A.(Cantab.), M.R.C.S., L.R.C.P., of a daughter.

BONTOR.—April 23rd, at Great Berkhamsted, Herts, the wife of Sidney A. Bontor, M.D., of a son.

EDGE.—May 2nd, at Tudor House, Maidenhead, the wife of Arthur Edge, M.B Lond., of a daughter.

Marriages.

GREENYER—LINDSAY.—April 15th, at Upper Tooting, V. T. Greenyer, L.R.C.P., M.R.C.S., to Mary J. Douglas Lindsay, younger daughter of George Lindsay, of Balham.

GROVES—ANDERSON.—April 21st, at St. Nicholas, Cole Abbey, by the Rev. E. Anderson, M.A., Vicar of Berwick Bassett, Wilts, father of the bride, assisted by the Rector, Canon Shuttleworth, E. W. H. Groves, L.R.C.P., M.R.C.S., to Frederica Margaret L. Anderson.

Deaths.

SQUARE.—On April 18th, at Plymouth, Wm. Square, F.R.C.S.Eng., L.R.C.P.Lond., aged 52 years.

FRASER-LUCKIE.—May 5th, at the residence of his father, Spencer Park, Wandsworth Common, H. O. Fraser-Luckie, M.B., in his thirty-first year.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette, St. George's Hospital Gazette, St. Mary's Hospital Gazette, The Nursing Record, The Charity Record.*